MAIN SUBJECT HEADINGS

A	CC	TD	IN	TC
\boldsymbol{H}	\cdot		1016	

ARCHAEOLOGY & PALEONTOLOGY

AWARDS

BEAUTIFICATION--See LANDSCAPE & LANDSCAPE MAINTENANCE

BRIDGES

BUILDINGS

BYPASSES--See ROADSIDE BUSINESSES & BYPASSES

CALIFORNIA HIGHWAY COMMISSION

CONVENTIONS--See EVENTS

CONVICT LABOR

CULVERTS--See also EROSION CONTROL

CURBS--See SAFETY

DAMS & CANALS

DIVISION OF HIGHWAYS--See also PERSONNEL/EMPLOYMENT RELATED

DOCUMENTS & RECORDS

DRAINAGE--See EROSION CONTROL

EDUCATION

ENVIRONMENTAL ISSUES--See also LANDSCAPE & LANDSCAPE MAINTENANCE

EQUIPMENT

EROSION CONTROL--See also FLOODING

EVENTS

EXHIBITS--See INFORMATIONAL SERVICES

FERRIES

FLOODING

FOREST HIGHWAYS--See ROAD CONSTRUCTION

FREEWAYS

GRADE CROSSINGS, SEPARATIONS & INTERCHANGES

GUARD RAILS--See SAFETY

HIGHWAYS--See ROUTES

HIGHWAY PLANNING & DESIGN

HISTORIC LANDMARKS & MONUMENTS

HISTORY: PEOPLE, PLACES & HISTORIC EVENTS--See also EVENTS

INFORMATIONAL SERVICES

INTERCHANGES--See GRADE CROSSINGS, SEPARATIONS & INTERCHANGES

LANDSCAPE & LANDSCAPE MAINTENANCE

LEGISLATION

LIGHTING--See SAFETY

LITIGATION / LEGAL

LITTER REMOVAL--See LANDSCAPE & LANDSCAPE MAINTENANCE

MAINTENANCE:-See also SNOW; LANDSCAPE & LANDSCAPE MAINTENANCE; EQUIPMENT

MEDIANS--See SAFETY

MOTOR VEHICLES--See also TRAFFIC

NATIVE AMERICANS

NATURAL DISASTERS--See also FLOODING

ORGANIZATION OF DEPARTMENTS--See DEPARTMENT OF PUBLIC WORKS

OUTDOOR ADVERTISING

PALEONTOLOGY -- See ARCHAEOLOGY & PALEONTOLOGY

PAVEMENT MARKINGS--See SAFETY

MAIN SUBJECT HEADINGS

PAVEMENT & PAVING--See also EQUIPMENT, Paving Related

PEOPLE--See PEOPLE INDEX

PERSONNEL/EMPLOYMENT-RELATED

PUBLIC RELATIONS--See INFORMATIONAL SERVICES

RECORDS MANAGEMENT--See DOCUMENTS & RECORDS

REST STOPS & VISTA POINTS

RIGHT OF WAY

ROAD CONSTRUCTION

ROADSIDE BUSINESSES & BYPASSES

ROUTES

SAFETY--See also ACCIDENTS

SCENIC HIGHWAYS

SCENIC/RECREATIONAL AREAS, STATEWIDE

SIGNALS

SIGNS

SNOW

TECHNOLOGY--See also EQUIPMENT; PAVING

TRAFFIC--See also MOTOR VEHICLES

TRAINING--See EDUCATION; PERSONNEL/EMPLOYMENT

TREES--See LANDSCAPE & LANDSCAPE MAINTENANCE

TUNNELS & TUBES

UTILITIES

VISTA POINTS--See REST STOPS & VISTA POINTS

WORLD WAR II-RELATED

List of Abbreviations:

AAPT Association of American Paving Technologies AASHO American Association of State Highway Officials AISC
WASHO Western Association of State Highway Officials Alt Alternate Br Bridge Bus Business Fwy Freeway Hwy Highway Leg. Rt Legislative Route Pkwy Parkway RR Railroad Rt Route
Key i.cvr inner cover C, BC Cover, Back Cover highway names/numbers in brackets [denotes former route names/number]

ACCIDENTS

ACCIDENTS	
Accident spots pinpointed on district map to identify troublesome spots. Accident which occurred in daytime on paved road.	J/A '65 p34 Aug '38 p8
Car and truck accident on Bayshore Hwy. [US 101] near S.F.	S '37 p13
Construction accident; truck on its tailgate on small ledge of rock.	M/A '51 p49
Tow line attached to truck.	M/A '51 p49
Undamaged truck ready to resume operations	M/A '51 p49
Electronic data processing equipment used to identify high accident locations on state highway system.	J/A '65 p37
Emergency first aid training	_
Highway first aid crews, group photo.	O '37 p14
Maintenance men illustrating first aid treatment for accident victim.	O '37 p4
Fog; visibility on freeway with and without fog.	M/J '65 p23
Head on collision of truck and car on highway.	Aug '38 p9
Hole in fence along I-10 (San Bernadino Fwy.), which led to pedestrian's death.	S/O '48 p37
Minor collision on freeway.	J/A '56 p12
National Safety Council poster for traffic signs.	S '37 p18
State car in parking lot, and after being hit by pickup truck on Rt. 99.	M/J '61 i.cvr
Stop signs, cross-road warning signs at site of accident (Alameda Co.).	S/O '47 p8
Traffic accident on unidentified stretch of highway.	Apr '39 p2
Wreckage from airplane/truck collision on state highway.	F '42 p19
ARCHEOLOGY & PALEONTOLOGY	
Caldecott Tunnel fossils	
Aphelops joined together by U.C. paleontologists.	J/F '63 p51
Hipparian jawbone and teeth sections found in tunnel bore.	J/F '63 p50+
Pieces of leg bone of long extinct rhinoceros.	J/F '63 p51
Place in tunnel where fossils were found.	J/F '63 p51
Fish fossil found during excavation of Ft. Moore Hill in L.A.	M/J '51 p46
Los Angeles Co. Museum of Natural History	
Children viewing exhibits in La Brea Hall.	J/A '66 p15
Dinosaur bone piece kept available for children to touch.	J/A '66 p15
Dr. Reid MacDonald, senior curator of vertebrate paleontology.	J/A '66 p14
Imperial mastodon skeleton at the museum	J/A '66 p15
Schoolboy with fossil vertebrate at museum exhibit.	J/A '66 p12
Teacher and class inspecting skeleton of Antrodemus valens.	J/A '66 p15
Placer Co., I-80 [US 40]; 30 million-year-old gravel deposits near Gold Run.	M/A '46 p27
Tertiary-Age river channel exposed by cut banks near Gold Run.	M/A '46 p28
San Diego Co.	
Batiquintos Lagoon archaeological sites	
Aerial view of archeological sites.	M/J '61 p46
Batiquitos Lagoon in winter.	M/J '61 p51
Detail of recovered artifacts.	M/J '61 p49+
Excavation in progress.	M/J '61 p47
Profile of pit with column sample removed.	M/J '61 p49
Shell midden exposed by road cut.	M/J '61 p47
Stone features of a site.	M/J '61 p47
"Chula Vista Whale;" schoolchildren who discovered fossils.	J/A '66 p13+
Schoolchildren and teacher excavating around find.	J/A '66 p14
Towle Powder Mill burrstones being assembled at Sutter's Ft.	S '37 p16
UCLA archaeology students working at test pits site on Rt. 1 right-of-way north of	
Cambria (San Luis Obispo Co.).	M/A '66 p10+
Students digging test pits, screen dirt and recovering artifacts.	M/A '66 p11

AWARDS

Abrams Award winner L.L. Funk and photogrammetry e ASCE engineering award [I-80, trans-Sierra route]	xhibit.	M/J '59 p14
Official party at plaque dedication with 1927 Stutz E	Dlaalshawls	I/A '66 p16
		J/A '66 p16
ASCE "7 Civil Engineering Wonders" of U.S. award for		M/A '58 p23
Bartlett (George S.) Award inscribed to Charles H Purcel		J/F '45 p7
"Boneroo Stag" awards [best contracts]	N/D '52 p48; M/J '53 p64;	
J/F '54 p37; M/J '54 p30; M/J '56 p	o49; J/A '57 p25; J/A '58 p48;	M/A '60 p62
Bridge awards; display of prize-winning bridges 1964 on		N/D '64 p57
Employee-related Awards	exhibit at I w Bullang.	14/D 04 p3 /
- ·	I/E 551 D27. C/O 551 55.	I/E (5157
Merit Award recipients	J/F '51 P37; S/O '51 p55;	J/F '51 p57
Safety Awards		
Alan S. Hart receiving award for best accident p	prevention, Dist. 3.	J/A '59 p38
Gov. Warren presenting traffic safety awards.		J/A '53 p3
Superior accomplishment award being presented to J	Jack Snell	J/A '66 p32
25-year-service award presented to Fred J. Grumm		N/D '52 p38
	roup photo	
25-year-service award recipients and PW officials, g	roup photo	S/O '51 p62
Governor's Design Award certificates [transportation].		J/F '67 p37
Hewes (Dr. L.I.) Award.	S/O '54 p33; M/A '62 p8;	J/A '64 p19
Highway Research Board Award [best paper] recipients.		J/F '58 p60
Institute of Traffic Engineers (ITE) Award	M/J '49 p33;	S/O '60 p63
Landscaping Award; first place trophy for L.A. freeway		J/F '54 p37
McDonald (Thomas H.) Award [AASHO].	prantings.	J/F '59 p21
	I/A 440 11. I/A 462 20.	
National Safety Council Traffic Safety Awards	J/A '48 p11; J/A '62 p20;	S/O '64 p60
PARADE Magazine Scenic Highway Award		
J. C Womack accepting <i>PARADE</i> Scenic Highway a	ıward.	M/A '66 p33
Local officials with <i>PARADE</i> award before Div. of I	Hwys. exhibit.	M/A '66 p34
Posing for press photos with PARADE award plaque	· .	M/A '66 p35
		1
BRIDGES		
Accidents, bridges and general		
Accident caused by ineffective rails.		S/O '45 p12
Damage to bridge caused by two vehicles attempting	g to pass.	S/O '45 p11
Truck trailer causes collapse of bridge across Rio Ho	ondo.	N/D '45 p33
Truss span over Woods Cr. demolished by truck.		Mar '38 p4
Arch bridge, 1940s		J/A '44 p13
S /		3/11 11 p13
Bridges needing improvement/replacement, general	ai au.	T/A 4/1/ 1/
Bridge unable to carry legal load because of light de	=	J/A '44 p14
Bridge typical of many structures in need of replacer	ment.	M/A '47 p2
Bridges needing improvement, Dist. 3.		Aug '38 p1
Decay in bents of timber overhead structure (note de	eck settlement).	D '40 p3
Disintegration of beam due to defect in expansion de	etail.	D '40 p3
Emergency repairs to antiquated wooden structures.		F '38 p15
Light, narrow bridge posted and likely to collapse.		D '40 p2
		•
"Must replace" bridge which is weak and structurally		J/A '44 p14
One-way timber suspension span reinforced by addit		D '40 p3
Serious cracking in girder span due to inadequate ex	pansion detail.	D '40 p2
Support piles weakened by marine borers.		D '40 p2
Timber truss bridge which collapsed under truck and	d trailer.	D '40 p1
Type of bridge on which loads must soon be restricted		J/A '44 p13
Unidentified older bridge.		Apr '39 p2
Weakening due to poor concrete pile and abrasion by	y floating drift	D '40 p2
California Toll Bridge Authority, group shot		S/O '56 p14
Camornia Ton Drigge Aumority, group snot	Jun '39 p2;	3/U 30 P14
S 378 1	1 /	•

BRIDGES, Continued China; Taiwan, arch bridge constructed at Formosa. J/F '54 p52 Covered bridges Bridgeport covered bridge over Yuba River. S/O '50 p118 Clear Creek covered bridge (Humboldt Co.) N/D '50 p12 Dillon Creek covered bridge. (Humboldt Co.) N/D '50 p13 O'Byrne's Ferry bridge over Stanislaus River. S/O '50 p118 Salmon River covered bridge in Siskiyou Co., removed in 1942. M/J '52 p11 Desert bridges Removing surfacing from desert bridge preparatory to redecking. J/A '49 p55 Salvaged pieces of laminated flooring from desert bridge. J/A '49 p54 Typical desert alignment and desert bridge. J/A '49 p55 Typical desert structure after placing concrete deck and new railing. J/A '49 p54 Highway bridges; late 1940s structure with light steel rail, uniform depth beams, and light but strong steel columns for support. J/A '49 p52 Historic bridges (pre-1937) 1933 structure with solid rail, curved bottom cord girders, and heavy concrete piers built to skew of railroad track. J/A '49 p53 Bridge built by the Padres, Santa Barbara Co. S/O '50 p114 Cast-in-place arches over Arroyo Quemada, 1917 S/O '50 p121 Cattle Pass, unidentified locale. M/J '52 p12 Fern Br., longest of type when built in 1911 (Eel Rvr.) S/O '50 p123 Inadequate bridge of type built in 1880s and 1890s. S/O '50 p91 S/O '50 p119 Remains of Mokelumne Rvr. bridge at Lancha Plana, built in 1856. Yuba River open-spandrel arches at Parks Bar, 1913 S/O '50 p121 S/O '50 p116 Woodcuts of typical Pioneer Era bridges. Wooden bridge on Redwood Hwy. alignment. M/J '64 p9 Load testing [foundation] operations N/D '50 p36+; N/D '60 p54 Maintenance, structural **Bulkhead and Abutment Replacement** Abutments using "cross-overs" made of salvaged 6-in. planks. J/F '45 p19 Bridge after repair of decayed bulkhead planks. J/F '45 p16 Bridge repaired using existing "dead-man" rods. J/F '45 p20 Corrugated sheet metal backing used to protect stringer ends. J/F '45 p18 Counterforted type of abutment. J/F '45 p19 Dry rot damage to timber bridges, examples of J/F '45 p19 "L" type construction used to save concrete in new footing. J/F '45 p19 Damaged Trinity River Br. with temporary repairs underway. M/J '45 p7 **Expansion Detail Failure** Concrete cap shattered by expanding and contracting of girders. N/D '40 p17 J/F '46 p27 Cover plate type of deck joint armor and subsequent failure. J/F '46 p24 Damage to expansion assembly due to excessive pier movements. Failure of deck joint edge armor. J/F '46 p24 J/F '46 p25 Failure of membrane type joint due to contraction and expansion. Flexible piers added on Bear River Br. J/F '46 p24 Samson Slough Br. before/after repair work to bearing failure. J/F '46 p26 Spalled areas under expansion plate. J/F '46 p24 M/J '45 p7 Floor beams strengthened by truss beam method.

California Highways and Public Works

PHOTOGRAPH INDEX 1937-1967

BRIDGES, Continued **Piling Maintenance** Damaged pile. M/A '45 p5 M/A '45 p6 Ground line decay in untreated piles. Pedestals for stubbing decayed posts and piles. M/A '45 p7 Pile encasement repair work on Newport Bay Br. J/F '47 p38 Pile with decay developing from top. M/A '45 p5 M/A '45 p8 Posts daubed with toxic salt wood preservative. Rotted end of removed pile. M/A '45 p6 Steel piles encased in reinforced concrete collars. M/A '45 p5 Repair of traffic damage on Kings Slough Br. M/J '45 p5 **Scour and Settlement Problems** Buttress fill riprapped with sacked concrete, Kings River, Rt. 41 J/A '45 p19 Jacking superstructure back to grade, Big Tujunga Wash. J/A '45 p18 Sacked concrete riprap under construction, Big Tujunga Wash. J/A '45 p18 Scour damage to Granite Canyon Br., Rt. 155 [Rt. 142], Kern Co. J/A '45 p18 Scour damage to Poso Creek Br., Rt. 99, Kern Co. J/A '45 p19 Timber trestle bridges, repairs to M/A '44 p13 Models of Bridges O '40 p27; F '42 p10 Painting; corrosion resistance testing M/A '65 p60 May '42 p17 Mobile bridge painting operations Orthotropic bridge for research purposes. N/D '65 p27 **Railings and Curbs** Bridge railing which obstructs view of vehicle approaching on crest vertical. J/F '51 p51 Impact test being conducted to test design of bridge rails. N/D '65 p41 Narrow bridge with substantial curbs replacing inefficient ones S/O '45 p12 Structures before and after new curbs and rails. S/O'45 p13 Vehicle encroaching on opposing traffic lane of narrow bridge. S/O '45 p11 Replacement of bridges by culverts and fills Bridge, and replacement of same by pipe and fill M/A '47 p24 Cattlepass bridge before/after replacement by fill. M/A '47 p25 M/A '47 p26 Long trestle before/after replacement by culvert. Short span trestle, and after replacement with concrete arch. M/A '47 p26 M/A '47 p24 Sidehill viaduct, same spot after fill replacement. Trestle before and after replacement with culvert. M/A '47 p27 Steel Welds; Applying film to welded area before making radiographic check for hidden flaws. J/F '67 p11 Truss span being assembled at Virginia Bridge Co. plant. N/D '48 p46 **Bridges By County** Alameda Co. Alameda Creek Br., four-lane improvement (Niles). N '37 p19 Alameda Creek Br. and overhead four miles east of Niles. M/A '48 p10+ Altamont Br., traffic violation and hazards on. O '37 p19 Alvarado--Niles Rd. Overcrossing at Nimitz Fwy. [Eastshore Fwy.] M/A '58 p47 Arroyo Del Valle Br. (Santa Rita Rd., Pleasanton). S/O '59 p47 Cypress St. double-deck viaduct-- (Nimitz Fwy., I-880) Under construction [first double-deck freeway structure in state] J/F '57 p34 Dedication; official party at ribbon-cutting ceremony J/A '57 p43 Crowd at Cypress St. Viaduct dedication. J/A '57 p43 J/A '57 cover Caravan of cars using new facility. M/A '58 p14 Double-deck Cypress St. structure. Dry Creek Br. on Alvarado--Niles Rd. M/A '58 p47

BRIDGES Alameda Co., Continued		
El Cerrito Overhead, section of deck cut to increase skie	d resistance.	J/F '63 p44
Highway bridge near Dublin being instrumented as part		N/D '65 p30
Niles Canyon; one of two eliminated bridges on realign		N '40 p8
Posey (Alameda) Tube Overcrossing.		M/A '54 p11
San Francisco-Oakland Bay BrSee San Francisco Co.		v · F
San Leandro Bay Br., opened July 1, 1953		J/A '53 p47
Close-up of span being opened.		J/A '53 p47
San Leandro Bay Br., built by a narrow gage railro	ad in 1881.	M/A '51 p55
San Leandro Creek Br. and approaches under construct		M/A '50 p11
San Lorenzo Creek Channel Br. (Mattox Rd. and E. 14t		J/F '61 p64
Alpine Co.		
Raymond Meadow Creek concrete bridge, Rt. 4.		N/D '64 p54
Old Twin Lakes Br. ca. 1923-25, now at bottom of lake	. (Rt. 88)	S/O '51 p24
Amador Co.	,	1
Consumnes Rvr. Br., installing new truss		M/A '44 p20
Consumnes River Br. near Plymouth, and old timber	er truss span.	J/F '53 p17
Dry Creek Br., imaginative pier design.	1	N/D '66 p26
Mokelumne River, narrow bridge on Rt. 49 (Mother Lo	de Hwy.)	Mar '39 p11
Mokelumne River Br. near Jackson under construction.		J/F '53 p19
Butte Co.		
Bidwell Bar, old bridge [ca. 1856] across S. Fork of Fea	ather Rvr.	M/A '47 p2
Bidwell Bar suspension bridge over Middle Fork Feather		S/O '50 p120
Bridge across penstocks of PG&E's Cresta plant, Feath		M/J '52 p15
Butte City Br. dedication	,	J/F '49 p46
Feather River Br., reflooring (Rt. 70 at Oroville).		N/D '44 p10
West Branch Br. (Feather River, Rt. 70) [US 40-Alt.], d	lrawing of proposed span.	M/J '57 p28
Under construction	N/D '60 p59;	M/J '62 p3+
Completed span	M/J '62 p2; N/D '62 p54;	M/J '64 p63
Calaveras Co.	1 / 1 /	1
Murray Creek Steel pony truss bridge, demolished in 19	949.	J/F '53 p17
N. Fork Calaveras River bridge near San Andreas.		J/F '53 p17
Contra Costa Co.		1
Antioch Toll Br. (I-80) [US 40].	Jun '40 p3; Aug '40 p3;	J/A '45 p10
repairs made to	1 / 0 1 /	M/A '53 p31
Carquinez Toll Br. (I-80) [US 40].		Jun '40 p2
Bridge on original dedication day, 21 May, 1927.		May '42 p2
Original Carquinez span under construction, 1927.		M/A '57 p42
Ceremony officially opening bridge under state ow	nership.	S '40 p1+
Drawing-photo of existing bridge and proposed par		J/A '55 p2
Model of truss and towers for Carquinez parallel br		J/A '55 p3
Gov. Knight and Legislators who sponsored Carqu		J/A '55 p5
Engineers gathered at site of parallel span.		J/F '56 p29
First day of bidding on four Carquinez Br. projects		J/F '56 p30
	S/O '56 p26+; J/F '57 p41;	•
	57 p36+; M/A '58 C, p28+;	J/F '59 p7+
Completed parallel Carquinez Br.		J/F '59 p1
Final closure between two cantilever arms.		J/F '59 p3
Official party at ribbon-cutting ceremony.		J/F '59 p3
View of both spans.	J/F '59 p11, 45;	M/A '59 p28+
Riveting used to create "lacework" on older Carqui		M/A '62 p9
Perforated box girders on new Carquinez Br.		M/A '62 p9
High-strength steel and modern welding techniques	s on new span.	M/A '62 p10
_		

BRIDGES Contra Costa Co., Continued	
Pacheco Slough Br., which is to be replaced.	M/A '47 p7
Pedestrian undercrossing [unidentified locale]	M/J '52P11
Pinole, I-80; bridge construction near railroad tunnel.	F '39 p21
RichmondSan Rafael Br.	•
Under construction N/D '53 p3+; M/A '54 p21+;	M/J '55 p45+
Trestle connecting old ferry pier with permanent construction.	M/A '54 p20
Diver C.H. Wendell, who had near-fatal accident while working	•
on bridge, and diver's tender who saved his life.	M/J '54 p60
Gov. Knight and party on partially completed upper deck.	N/D '54 p21
Nearly completed bridge, showing gap in east cantilever span.	M/J '55 p39
Completed bridge J/A '56 p2;	S/O '65 p50
Aerial view of North Bay crossing	J/A '56 p3
Gov. and Mrs. Knight with bronze plaque placed on granite	1
stone at toll plaza 's Administration Building.	S/O '56 p12
Official party at dedication.	S/O '56 p13
Approaches to toll plaza, Contra Costa Co. side.	S/O '56 p15
Toll collector awaiting first automobile to cross bridge.	S/O '56 p16
Building upper deck permanent approach; old ferry wharf.	S/O '56 p16
Ten-millionth driver to cross bridge	M/J '60 p68
Checking anchor bolts, damaged when ship collided with pier.	N/D '65 p51
Del Norte Co.	1
Douglas Memorial Br. over Klamath River at Klamath.	S/O '50 p151
Howard Griffith Memorial Br. (M. Fork Smith Rvr., Crescent City)	J/F '64 p28
Smith River Br. built 1907 of poor material.	Mar '37 p8
Smith River Br., contrasting views of new and old spans	Apr '41 p5
S. Fork of Smith River; old suspension bridge, replacement span.	N/D '49 p11
Wilson Creek Br. on US 101.	M/A '57 p67
Old low-level bridge across Wilson Cr.	M/A '57 p68
El Dorado Co.	1
Aukum River Br. construction area	M/A '61 p27
Aukum Road Br. across N. Fork Cosumnes Rvr.	M/A '61 p29
Chili Bar Br.	M/J '52 p44
Coloma; bridge across S. Fork of American River; Wooden 1928 span.	J/F '53 p20
Hastings Creek bridge (Rt. 49 north of Coloma).	J/A '63 p18
Stone Arch Br. on Lake Tahoe Wagon Rd. (US 50), construction of.	S/O '50 p91
Webber Creek Br. (US 50 near Placerville), old span.	F '37 p19
Replacement bridge, completed	Jul '38 p10
Twin span under construction at night	N/D '61 p36
Completed twin span, winner of AISC award.	J/F '65 p41
Fresno Co.	_
Fresno; Tuolumne St., Stanislaus St. one-way bridges	S/O '58 p36
Hot Springs Canyon Creek bridge (Rt. 198, ColingaSan Lucas)	J/A '51 p24
Kingsburg; bridge across Kings River under construction.	D '39 p10+
Kings River Br. with abutments and center pier complete.	Jul '38 p4
San Joaquin Rvr. one-way bridge near Fresno. (Rt. 41) [Rt. 125]	N '38 p2
Tuolumne St. one-way bridge over SP RR, G St. and H. St., (Fresno).	J/A '57 p12
Warthan Creek "sea-going bridge" anchored by cable (Rt. 198).	Aug '42 p2
Washout of culvert and bridge, bypassed by Rt. 198 realignment.	Aug '42 p2
White's Br., collapsed due to overloaded truck; Reconstructed bridge.	M/A '47 p15
Glenn Co.	
Sacramento Rvr. overflow channel causeway (WillowsButte City).	N/D '61 p15
Swing bridge across Sacramento Rvr. at Hamilton City, built 1908.	M/J '52 p11

BRIDGES, Continued Humboldt Co.

mboldt Co.	
Clear Cr. covered bridge replaced by new structure.	N/D '50 p12
Dillon Creek covered bridge replaced by modern structure.	N/D '50 p13
Dyerville Br. across Eel River.	M/J '56 p28
Eagle Point Viaduct (US 101) under construction J/F '62 p4+;	N/D '62 p18
Completed structure	S/O '64 p21+
Eel River Br. at Rio Dell, washed out in 1964 flood.	N/D '65 p56
Repaired structure	N/D '65 p56
Eureka Slough Br. (EurekaArcata.) under construction	S/O'56 p10+
Completed structure	S/O '56 p9
Ferndale Br. under construction in 1911, then the largest of its type in the world.	M/J '64 p11
George C. Cole Memorial Br. (Eel River at Meyers Flat) under construction.	J/F '62 p5
Completed structure	J/F '63 p29
George M. Leatherwood Memorial Br (S. Fork Eel River; Dyerville)	M/J '58 p40
Completed new span N/D '59 p25, 33; J/F '60 p36, 43;	S/O '64 p18
	S/O '57 p59
Hoopa Rvr. Br. small truss before being washed away by flood waters.	
Temporary low-level bridge downstream from bridge site.	S/O '57 p59
Replacement bridge.	S/O '57 p60
Klamath River Br at Klamath, damaged by 1964 flood.	N/D '65 p57
Repair work underway	N/D '65 p57
Bridge shortly before reopening.	N/D '65 p58
Klamath Rvr. Br. at Martins Ferry, built as a flood repair project.	N/D '61 p41
Klamath River Br. at Weitchpec.	M/A '49 p37
Mad River N. Fork, Rt. 299; logging truck crossing suspension bridge.	M/J '47 p27
Martins Ferry Br. between US 101 and Klamath Rvr. towns, destroyed by flood.	J/F '65 p16
Narrow, posted bridge on Rt. 299 [Arcata-Redding Hwy.].	Jan '39 p4
Narrow one-way suspension bridge on Rt. 299 [Arcata-Redding Hwy.].	Jan '39 p4
North Scotia Br. at Rio Dell	
Old and new spans	Apr '41 p4
Crowd at dedication of new span.	Apr '41 p2
Partially destroyed by 1964 floods.	S/O '65 i.cvr
Restoration in progress.	S/O '65 i.cvr
Orleans Bridge (Klamath River, Rt. 96)	
Completed structure Jun '41 C, p2+;	J/F '63 p28
Dedication ceremony for AISC prize-winning bridge	N '41 p22
State Bridge Engineer F.W. Panhorst accepting AISC award	N '41 p22
Former Orleans span	Jun '41 p36
Destroyed by flood.	J/F '65 p16
Robinson Ferry Br. across Eel River; Old span, posted for load limit.	Apr '41 p3
Slyvandale Br across South Fork Eel River.	M/A '66 p19
S. Fork Eel River bridge at Smith's Point, built 1934.	S/O'50 p129
S. Scotia Br. under construction, 1916.	J/A '64 p28
S. Scotia parallel bridge over Eel River	M/A '61 p24+
Original S. Scotia Br under construction, 1916.	J/A '64 p28
Valley Creek bridge, US 101 (Redwood Hwy.).	Jan '39 p5
Willow Creek Br.	N/D '66 p27
Yager Creek timber truss bridge	Mar '37 p8
Yager Creek Br. with broken post.	Mar '38 p5
ragor creek br. with broken post.	waa so ps

BRIDGES, Continued	
Imperial Co.	
Bridge near shore of Salton Sea.	M/J '52 p12
Colorado River Br. (I-8) [US 80]	
Old Yuma Br. and railroad bridge.	M/A '56 p34
Under construction.	M/A '56 p35
Arizona governor and Frank Durkee at dedication ceremony.	J/A '56 p55
Highway approach from old bridge to new span.	M/A '56 p35
Approach bridge to new Yuma structure.	M/A '56 p35
Completed bridge J/A '56 p55;	N/D '58 p35
I-40; 7-span bridge under construction, CaliforniaArizona.	N/D '65 p11
New River Br. on Rt. 86 [US 99], ribbon cutting ceremony.	S/O '53 p47
Kern Co.	
Caliente Creek Br. on Rt. 46 [US 466] east of Bakersfield.	M/A '61 p36
Garces Circle Br., Bakersfield	M/A '57 p58
Granite Canyon Br., Rt. 155 [Rt. 142], scour damage to.	J/A '45 p18
Kern Ave. Ped. Overcrossing on US 99 at McFarland.	N/D '60 p63
Poso Creek Br. (Rt. 65).	Jan '42 p24
Poso Creek Br. with salvaged railroad-rail railing.	J/A '44 p10
Poso Creek Br., Rt. 99, scour damage to.	J/A '45 p19
Red Rock Canyon main wash bridge under construction.	M/A '60 p47+
Tehachapi Creek Br. under construction.	N/D '48 p41
Tehachapi Creek plate girder bridge under construction.	J/F '63 p23
Kings Co.; Kings River twin bridges on Rt. 198 near Lemoore NAS	J/A '63 p46
Lake Co.; Kelsey Cr., existing posted span, piers for new bridge.	J/F '47 p22:
Los Angeles Co.	
Aliso Street Br. under construction.	F '41 p13+
Completed bridge showing connections with other freeways.	S/O '44 p19
Completed Aliso St. separation project.	J/A '48 p14
Arroyo Seco Br. (Pasadena), ribbon-cutting ceremony.	N/D '53 p48
Arroyo Seco Channel Pedestrian Br. [first prestressed of type in state]	
Under construction.	M/A '51 p1+
Completed bridge.	S/O '51 p50
Arroyo Seco flood control channel, prestressed carrying beams.	J/A '64 p7+
Arroyo Seco Pkwy. (Rt. 110)	
Aerial view of Arroyo Seco Pkwy. showing 5 of 26 bridge structures.	Jan '41 p6
Arroyo Dr. Br. over freeway in S. Pasadena.	N '40 p14
Artist's drawing of typical planned bridges.	D '37 p10+
Ave. 40 Br. over freeway and channel.	N '40 p14
Ave. 43 Br. over freeway and channel.	N '40 p14
Ave. 52 Br. over freeway and Arroyo Seco Channel.	N '40 p15
Elysian Park extension viaduct and bridge for southbound traffic only.	J/F '44 p2
Grand Ave. bridge, completed. Jun '39 p13;	N '40 p14
Hermon Ave. Br. over freeway.	N '40 p15
Los Angeles River Br. under construction.	N/D '43 p4
Los Angeles River Br. for northbound traffic.	J/F '44 p2
Arroyo Seco Pkwy. bridges crossing Los Angeles Rvr.	J/F '55 p16
Marmion Way Br. crossing over freeway and channel.	N '40 p15
Orange Grove Ave. under construction.	Jun '39 p11
Big Tujunga Wash, concrete bridge over the south overflow channel.	F '38 p10
Jacking superstructure back to grade, Big Tujunga Wash.	J/A '45 p18
Sacked concrete riprap under construction, Big Tujunga Wash.	J/A '45 p18
Cahuenga Blvd underpass under construction. (US 101)	M/A '52 p4

BRIDGES Los Angeles Co., Continued

RIDGES Los Angeles Co., Continued	
Colorado Fwy. Br. ["Pasadena Pioneers Br."]	
Old Colorado Br. and future site of new bridge.	J/F '51 p22
Retouched photo of bridge models, showing relation of existing	
and proposed spans.	J/F '51 p23
Models of proposed and existing Colorado St. bridges.	J/F '51 p25+
Engineer George T. McCoy at ground-breaking ceremony.	M/J '51 p5
Engineer F.W. Panhorst at ground-breaking.	M/J '51 p5
Scene at ground-breaking.	M/J '51 p6
Harrison R. Baker (CHC) and child at ground-breaking.	M/J '51 p6
Harrison Baker operating shovel at ground-breaking.	M/J '51 p44
Observation post for "sidewalk superintendents" at bridge site.	M/J '52 p18
Interior of observation building showing model of bridges.	M/J '52 p20
Under construction M/A '52 p14; M/J '52 p18+;	M/A '53 p16
Old and new spans over Arroyo Seco at Colorado Blvd.	J/F '55 p16
Cypress Ave. Pedestrian Overcrossing.	S/O '61 p13
Devil's Gate Dam Br.(Arroyo Seco, I-210, Foothill Fwy.)	
Sketch of proposed span	J/A '54 p49
Existing Arroyo Seco Br. at Devil's Gate Dam.	J/A '54 p51
Completed Devil's Gate bridge across Arroyo Seco	M/J '55 p40
Elysian Viaduct (I-5/Rt. 110). J/F '61 p22+;	J/F '64 p30
Erection of structural steel at crossing of Los Angeles Rvr.	S/O '61 p11
Erection of steel at crossing of SP railroad yard.	S/O '61 p11
Curved steel girders supported by prestressed carrying girder over	
Arroyo Seco Channel.	S/O '61 p13
Curved On-ramp to Elysian Viaduct.	S/O '61 p14
FAS Bridges	_,, ,
Bridge over Santa Clara Rvr. and SP tracks on Soledad Cyn Rd.	J/A '52 p2
Bridge over Santa Fe Dam outlet works on Arrow Hwy.	J/A '52 p2
Bridge on San Gabriel Co. Rd.	J/A '52 p6
Bridge over N. Fork of San Gabriel Rvr.	J/A '52 p6
Bridge over San Gabriel Rvr on Florence Ave.	J/A '52p7
Highway bridge over N. Fork of San Gabriel Rvr. on Valley Blvd.	J/A '52 p7
Old bridge over San Gabriel Rvr. on Center St.; new bridge	T/A (50 5
being built.	J/A '52 p7
Figueroa St. Viaduct	4 (27 14)
Under construction.	Apr '37 p14+
Constructing underpass for Figuroa St. while traffic proceeds on Temple St.	N '39 p14
Permanent ramps built before excavation began permit traffic to proceed	NI 520 1.5
during construction of underpass.	N '39 p15
Figueroa St. undercrossing near Four-level structure.	J/F '49 p62 M/J '49 p34
Florence Ave bridge across Los Angeles River.	VI/ I 49 D 14
	17170 17 p3 1
I-5; Golden State Fwy.	•
I-5; Golden State Fwy. Allen Ave. Undercrossing under construction in Glendale.	S/O '57 p22
I-5; Golden State Fwy. Allen Ave. Undercrossing under construction in Glendale. Bridge over northbound ramp connection from San Fernando Rd.	S/O '57 p22 J/A '54 p55
I-5; Golden State Fwy. Allen Ave. Undercrossing under construction in Glendale. Bridge over northbound ramp connection from San Fernando Rd. Bridge to carry freeway over Los Angeles Rvr. and Riverside Dr.	S/O '57 p22 J/A '54 p55 S/O '57 p23+
I-5; Golden State Fwy. Allen Ave. Undercrossing under construction in Glendale. Bridge over northbound ramp connection from San Fernando Rd. Bridge to carry freeway over Los Angeles Rvr. and Riverside Dr. Completed bridges near Alameda Ave., Burbank.	S/O '57 p22 J/A '54 p55 S/O '57 p23+ S/O '57 p21
I-5; Golden State Fwy. Allen Ave. Undercrossing under construction in Glendale. Bridge over northbound ramp connection from San Fernando Rd. Bridge to carry freeway over Los Angeles Rvr. and Riverside Dr. Completed bridges near Alameda Ave., Burbank. Humboldt St. Underpass, six utilities emerging from abutment of.	S/O '57 p22 J/A '54 p55 S/O '57 p23+
I-5; Golden State Fwy. Allen Ave. Undercrossing under construction in Glendale. Bridge over northbound ramp connection from San Fernando Rd. Bridge to carry freeway over Los Angeles Rvr. and Riverside Dr. Completed bridges near Alameda Ave., Burbank. Humboldt St. Underpass, six utilities emerging from abutment of. Owens Valley-Los Angeles open channel aqueduct, reinforced concrete	S/O '57 p22 J/A '54 p55 S/O '57 p23+ S/O '57 p21 S/O '61 p13
I-5; Golden State Fwy. Allen Ave. Undercrossing under construction in Glendale. Bridge over northbound ramp connection from San Fernando Rd. Bridge to carry freeway over Los Angeles Rvr. and Riverside Dr. Completed bridges near Alameda Ave., Burbank. Humboldt St. Underpass, six utilities emerging from abutment of. Owens Valley-Los Angeles open channel aqueduct, reinforced concrete bridge being built across.	S/O '57 p22 J/A '54 p55 S/O '57 p23+ S/O '57 p21 S/O '61 p13 J/F '54 p40
I-5; Golden State Fwy. Allen Ave. Undercrossing under construction in Glendale. Bridge over northbound ramp connection from San Fernando Rd. Bridge to carry freeway over Los Angeles Rvr. and Riverside Dr. Completed bridges near Alameda Ave., Burbank. Humboldt St. Underpass, six utilities emerging from abutment of. Owens Valley-Los Angeles open channel aqueduct, reinforced concrete bridge being built across. San Fernando Rd. and mainline SP RR track bridges	S/O '57 p22 J/A '54 p55 S/O '57 p23+ S/O '57 p21 S/O '61 p13 J/F '54 p40 J/A '54 p54
I-5; Golden State Fwy. Allen Ave. Undercrossing under construction in Glendale. Bridge over northbound ramp connection from San Fernando Rd. Bridge to carry freeway over Los Angeles Rvr. and Riverside Dr. Completed bridges near Alameda Ave., Burbank. Humboldt St. Underpass, six utilities emerging from abutment of. Owens Valley-Los Angeles open channel aqueduct, reinforced concrete bridge being built across.	S/O '57 p22 J/A '54 p55 S/O '57 p23+ S/O '57 p21 S/O '61 p13 J/F '54 p40

BRIDGES Los Angeles Co., Continued

RIDGES Los Angeles Co., Continued	
I-5; Santa Ana Fwy.	
Daniels Railroad Spur Underpass under construction	M/A '53 p61
Los Angeles River Br. near I-5/I-10 Interchange being widened.	S/O '55 p5+
Rio Hondo Br. under construction.	J/F '53 p21+
I-10; San Bernadino Fwy. [Ramona Fwy.]	•
Almansor Ave. Overhead, Alhambra under construction	M/A '53 p49+
Atlantic Blvd. Br. (Rt. 7) [Rt. 167].	J/A '53 p15
Barranca Street Br. under construction (W. Covina).	1
Bess AveFrazier Street Br. under construction (Baldwin Park).	M/J '57 p25
Big Dalton Wash pretressing operations.	J/A '56 p46
City Terrace curving on-ramp bridge.	S/O'51 p15
View from under curving City Terrace Dr. bridge.	S/O'51 p16
Cornwell Street Br.	S/O'51 p13
El Monte structure. under construction.	J/A '56 p48
Erecting precast superstructure at Bess Ave.	J/A '56 p46
Evergreen Ave. pedestrian overcrossing section being swung	•
into place by three truck cranes.	N/D '52 p39
Herbert Ave. overcrossing.	S/O'51 p13
Los Angeles River Br., widening operations.	J/F '55 p24
SunsetIrwindale Undercrossing under construction.	J/A '56 p46
Warwick Ave. pedestrian overcrossing under construction.	J/F '52 p19
I-110; Harbor Fwy.	_
Excavation for east abutment of 6th St. overcrossing.	M/A '51 p24
6th St. Underpass, structural details.	M/J '54 p11+
Figueroa St. bridge at 23rd St., nearly completed	J/A '54 p48
Pedestrian overcrossing under construction near 21st St.	J/A '54 p47
Ramp bridge for southbound traffic from 5th St.	M/J '54 p12
Washington Blvd. underpass, nearly completed.	J/A '54 p47
Wilshire Blvd. and 7th St. overcrossings.	M/J '54 p15
I-405; San Diego Fwy. [Sepulveda Fwy.]	
Dominguez Channel crossing at Wilmington Ave.	J/F '62 p58
Mulholland Drive Br. spanning future San Diego Fwy.	M/J '60 p6
Completed Mulholland Drive Br.	J/F '62 p49
Sunset Blvd overcrossing, Gov. Knight prepares to break ground.	S/O '54 p20
I-605 (San Gabriel River Fwy.), San Gabriel River Br. being raised.	M/J '62 p59
I-710; Long Beach Fwy.	
Belhart Street Br. across Los Angeles River.	M/J '51 p16
Belter St. Overcrossing.	S/O '58 p52
Compton Creek Br.	J/A '53 p12
Del Amo Blvd. Br.	J/A '53 p18
9th St. Br. under construction.	S/O '58 p54
Malibu Creek Br., widening operations (Rt. 1, Coast Hwy.).	M/A '49 p33
Ocean Ave. Br. showing steel girders installed on new caps.	S/O '44 p15
Orange Grove Ave. Br. in Pasadena opened to traffic Dec. 22, 1952.	J/F '53 p53
Pilgrimage Play Br. and subway underpass to Cahuenga Ave. (US 101)	Jul '40 p3
Rio Hondo River timber truss bridge (Rt. 60) [Rt. 172] near Montebello oil fields.	D '38 p2
Damage/repair of chords on trusses of Rio Hondo Br.	N/D '45 p13
Rt. 60, Santa Monica Fwy.; Los Angeles River Br.	
CHC members at ground-breaking.	J/A '57 p23
Start of excavation work for center pier in the L.A. Rvr. channel.	J/A '57 p24
Under construction	J/A '59 p39+
Lower deck slab poured.	S/O '59 p19

BRIDGES Los Angeles Co., Continued	
San Gabriel River Br., splice repair to damaged truss on.	N/D '45 p33
Tightening trusses in San Gabriel Rvr. w. fork bridge	N/D '45 p13
Santa Clara Br. and overhead.	M/A '49 p12
Santa Monica Fwy. Viaduct (Rt. 10)	•
Viaduct under construction at connection with Harbor Fwy. (I-110)	J/F '61 p16
Tubular steel falsework for construction of viaduct.	J/F '61 p19
Cast-in-hole pile construction for Santa Monica Fwy. viaduct.	J/F '61 p24
Completed section of Santa Monica Fwy viaduct, part of "loop bypass."	N/D '61 p5
Terminal Island Fwy., lower lever bascule bridge.	M/A '52 p15
Schuyler F. Heim lift span bridge.	M/A '52 p15
Vincent Thomas Br. [San PedroTerminal Island Br.]	r
Drawings of proposed bridge. M/J '59 p39;	J/A '60 p21
Gov. Edmund G. Brown and official party at ground-breaking ceremony.	J/A '60 p20
Site of future bridge showing locations of precise control survey stations.	S/O '60 p57
Under construction. N/D '62 p13;	M/A '63 p20
Aerial view of bridge with partially strung suspension cables.	N/D '62 p60
Cable spinning operations	J/F '63 p9+
Toll plaza on Terminal Island.	M/A '64 p27
Completed structure J/F '65 p41;	M/J '66 p14
Madera Co.	112,0 00 p1.
Cottonwood Creek Br. on Rt. 145 [Rt. 126].	Jun '41 p5
Lanes Bridge across San Joaquin River on Rt. 41.	N '41 p16
Concrete bridge over San Joaquin overflow connected with Lanes Br. by fill.	N '41 p17
Ribbon cutting ceremony at Lanes Br. dedication.	N '41 p18
Marin Co.	F
Corte Madera Creek Br. under construction on US 101.	M/A '59 p3
Golden Gate BrSee San Francisco Co.	
Petaluma Creek Br. under construction (Rt. 37).	M/A '58 p25-
Completed bridge.	M/A '59 p7
Vertical clearance improvement on Petaluma Creek Br.	M/J '45 p8
Richardson Bay Br. (US 101)	
Gov. Knight inspecting site of new bridge across Richardson Bay,	
obsolete 4-lane structure in background.	N/D '54 p21
Foundations for new bridge under construction.	M/A '55 p14
Bridge under construction.	M/A '56 p16:
New Richardson Bay Br. on left and existing span on right.	S/O '56 p31
Pedestrian overcrossing near Richardson Bay Br. on US 101.	M/A '59 p5
Side view of Richardson Bay Br.	M/A '59 p10
Richmond-San Rafael BrSee Contra Costa Co.	112/11 0> p10
Rock Creek Br., original timber truss, double arch span under construction, 1916.	J/A '64 p28
San Rafael Viaduct (US 101)	0/11 0 1 p=0
Viaduct under construction at junction with existing highway.	D '40 p11
Location of proposed viaduct in relation to existing buildings in San Rafael.	Jul '40 p7
Nearly completed highway viaduct through San Rafael.	Jul '41 p20
Official party at San Rafael Viaduct dedication.	N '41 p14
Northern approach to viaduct; Deck of viaduct.	Jan '42 p5
Viaduct on US 101 in southern part of county, dated 1923.	S/O '64 p16
War surplus bridge across Laguntias Cr. in Samual P. Taylor Park.	N/D '47 p11
Mariposa Co.; Bear Creek Br. (Rt. 140)	M/A '46 p24

BRIDGES, Continued	
Mendocino Co.	
Albion River Br., built for \$350,000.	J/A '44 p4
Crowd at dedication.	J/A '44 p5
County pioneer Mrs. Marian A. Haarby and official party at ribbon cutting.	J/A '44 p6
Original Albion River Br., built in 1922	S/O '50 p122
Alder Creek Br. and approaches (Rt. 1).	J/F '47 p20
Blue Slide replacement bridge, Rt. 1	J/F '47 p22
Bridge on Rt. 1 constructed ca. 1880s.	M/J '52 p12
Bridges Creek Br.	1
Old Queen's Post wooden truss bridge.	Mar '39 p23
New deck under construction using "skidding" operation	Mar '39 p23
Caspar Creek Br.; old timber trestle and concrete replacement bridge.	N/D '66 p27
Dangerous structure with narrow roadway near Hopeland.	Mar '37 p9
Dolan Creek timber arch bridge on Rt. 1.	M/J '52 p16
Elk Creek Br., the cause of several severe accidents.	Mar '37 p9
Elk Cr.; old timber bridge replaced by concrete girder bridge on new alignment.	S '39 p2
Garcia River Br. with timber trusses and approaches replaced by steel truss span.	S '39 p2
Gualala River Br., Rt. 1	2 27 P=
Reinforced concrete box girder bridge.	M/A '59 p18
Cable ferry crossing Gualala Rvr. ca. 1890-1894.	M/A '59 p19
Original bridge near Gualala, 1894	M/A '59 p19
Same bridge shaken from one of its piers by 1906 earthquake.	M/A '59 p19
Gualala Br. No. 2.	M/A '59 p19
Hare Creek Br.; detail of plaque dedicating span to Emil H. Evenson.	N/D '48 p33
Jack Peters Cr.; timber truss bridge replaced by modern concrete box girder span.	S '39 p2
Jughandle Cr.; old timber truss bridge replaced by concrete arch. (Rt. 1).	S '39 p2
Jughandle Cr. concrete arch bridge.	M/J '52 p14
Navarro River Br., old span, with new bridge in background.	M/J '49 p32
Close up of new structure.	M/J '49 p32
Noyo Creek Br., Ft. Bragg., old bridge.	N/D '48 p32
Plaque dedicating bridge to war veteran Charles Larson.	N/D '48 p33
Outlet Creek; four-lane structure, and NW Pacific RR north of Willits (US 101).	J/A '58 p40
Rock Creek Br. under construction	M/A '49 p52
Russian Gulch Arch, built in 1940.	S/O '50 p129
Schooner Gulch Br.	Aug '41 p23
Slick Rock Br., culvert and fill replacement of (Rt. 1).	J/F '47 35
Russian Gulch Br. with arch span (Rt. 1). Jul '40 p21;	D '40 p19
Rock Creek; trestle detour built in record time.	Jul '37 p16
Russian Gulch Bridge. S/O '50 p148;	J/F '53 p58
Ten Mile River Br. north of Ft. Bragg.	N/D '54 p22
Official party at dedication.	N/D '54 p23
Merced Co.	14/D 34 p23
Bear Cr.; old bridge and detour (Rt. 140) [GustineMerced Hwy.]	M/J '54 p49
Gustine Canal Br. showing bank lining.	M/J '54 p47
Rt. 33 south of Gustine: new bridge with improved alignment.	M/J '54 p47
San Joaquin River Br., Merced Co. collapsed due to overload	Mar '38 p4
San Luis Forebay channel twin bridges.	J/A '65 p5
Twin bridges on 4-lane divided hwy, near Merced.	N/D '47p22
Modoc Co.; Ash Creek Br., deterioration on (Rt. 299).	M/A '46 p23
Tribude Co., The Crock Dr., deterioration on (Rt. 277).	141/11 TO p23

BRIDGES, Continued	
Monterey Co.	
Big Creek Br. (Rt. 1) [Carmel-San Simeon Hwy.],	
Under construction. Jul '38 p24+;	May '39 p8+
Collapsed falsework of one arch on partially completed span due to flood.	Apr '38 p10
Bixby Creek Arch Br (Rt. 1) O '37 p4;	J/A '60 p55
Burns Creek Br.	Jul '37 p5
Cold Creek Br on Rt. 20 near Ukiah before safety-related improvement.	J/A '65 p32:
After replacement of concrete railing with continuous metal beam strip.	J/A '65 p32:
Dolan Creek Br.	Jul '37 p5
Dry Creek Br.; old, narrow bridge; and new Dry Creek Br.	O '38 p15
Fairgrounds Road Overcrossing bridge.	N/D '66 p24
	M/A '66 p7
	M/A 00 p/
King City Br. (Salinas River)	I/E '57 27
Pier and superstructure design.	J/F '57 p27
Close up of King City Br.	J/F '57 p28
Traffic using newly opened span.	J/F '57 p28
Lime Creek Br.	Jul '37 p5
Salinas River Br. on U.S. 101 near Soledad.	
Original narrow bridge O '38 p1;	D '39 p9
New Salinas River Br.	N '38 p23
Parallel bridges at Soledad under construction.	M/A '61 p53
Salinas, US 101	
Market St. Crossing under construction	J/A '53 p39:
N. Main St. Overpass construction;	J/A '53 p39:
Sherwood Dr. Overcrossing.	J/A '53 p39
Torre Creek Br.	Jul '37 p5
Vicente Creek Br. (Rt. 1.) before/after reinforced concrete footings	N/D '45 p13
Vicente Creek Br. on Rt. 1, winner of PCI award of merit.	J/A '65 i.cvr:
Willow Creek Br. under construction directly behind old span (Rt. 1).	M/A '63 p53
Completed bridge	J/A '64 p8
Napa Co.	0/11 0 . po
Chain link fence along Old Sonoma Rd. Overcrossing of Rt. 29.	M/J '61 p19
Maxwell Br. across Napa River.	N/D '49 p19
Welding studs into deck grid of Maxwell Br. to create nonskid surface.	M/J '65 p48+
Silverado Trail bridge, before/after views of realignment.	N/D '59 p27
Nevada Co.	N/D 39 p27
	M/A '66 n0
Concrete arch bridge on old US 40, built in the 1920s.	M/A '66 p8
Donner Creek Br. I-80 [Rt. 38], deterioration on rail.	M/A '46 p23
Donner Summit Br. and new lookout station for tourists (I-80).	O '37 p3
Narrow bridge and sharp curve on county highway.	Aug '38 p2
Poloris Br. across Truckee Rvr. I-80 [US 40].	M/A '46 p20
Poloris Br. with curb and rail damage	M/A '46 p21
Truckee River Br. on I-80 [US 40] northeast of Truckee.	N/D '60 p63
Orange Co.	
Artesia Street Br. over Los Angeles River.	J/A '53 p14
Artesia Street Br. over Long Beach Fwy. (I-710)	J/A '53 p12
Euclid Ave. Br. under construction in Anaheim. (I-5, Santa Ana Fwy.)	J/F '57 p7
Olive Undercrossing., start of construction.	J/A '55 p52
San Gabriel River Br., start of construction on.	N/D '52 p20
Santa Ana River Br. on Rt. 91 [Rt. 175].	J/A '55 p52
-	-

Placer Co.	
Blind vertical curve to narrow bridge on Placer Co. highway.	Aug '38 p3
Narrow, obsolete type subway near Roseville on Rt. 65 [US 99E]	Aug '38 p3
North Fork American River Br.	Aug 30 p3
Original structure built 1865	J/F '53 p18
Wire cable bridge at same location, 1928.	M/A '48 p37
Suspension bridge which replaced it in 1929 M/J '44 12;	J/F '53 p18
Cable bridge at same location ca. 1930.	M/A '48 p13
Replacing bridge tower	M/J '44 p13
Third structure under construction, 1948.	J/F '53 p18
Completed bridge, opened Feb. 14, 1948.	M/A '48 p13
N. Fork American Rvr. near Foresthill, new FAS bridge	N/D '55 p20+
Steel truss bridge which served the Foresthill area between 1911-1955.	N/D '55 p20
Obsolete one-way suspension bridge on Rt. 49.	Aug '38 p1
Steep approach on curve to railroad grade crossing.	Aug '38 p2
Steel and reinforced concrete bridge under construction (I-80) [US 40].	May '39 p19
Plumas Co.	J 1
Bridge near Blairsden, can be knocked down if hit by truck.	Mar '37 p9
Indian Creek Br. near Keddie which received award for its appearance.	N/D '55 p19
Pulga steel arch bridge on Rt. 70, railroad bridge far below.	J/A '45 p7
Quincy; timber bridge with new concrete bearing clocks on truss members (Rt. 70)	
Tobin; highway bridge underneath Western Pacific bridge (Rt. 70).	Aug '37 p5
Wolf Creek; highway bridge on Rt. 89 [Rt. 83] near Greenville.	Mar '39 p15
Riverside Co.	•
Colorado River Br near Blythe carrying I-10 [US 60-70].	M/J '59 p5
Crestmore Br. across Santa Ana Rvr. at Riverside.	J/A '58 p33
Channel constructed for Santa Ana Rvr., and Crestmore Br. at Riverside.	J/A '58 p34
Horsethief Creek Br. replaces old bridge damaged in 1938 flood.	O '41 p13
San Gorgonio Wash Br., sacked concrete riprap being placed at ends of.	May '41 p12
Smoky Gulch bridge nearly completed and ready for guard rail installation.	J/A '50 p26
Stiffeners used in original design may be reduced in later application.	J/A '50 p27
Special sections constructed for Smoky Gulch Br.	J/A '50 p27
Whitewater River bridges between Garnet and Thousand Palms on Rt. 86 [US 99].	J/A '54 p57
Sacramento Co.	
American River Br. at Sacramento under construction, interesting texture on piers.	N/D '66 p25
Bear Slough; existing bridge and construction on new bridge adjacent.	M/A '47 p7
Cosumnes River FAS-funded bridge near Sloughhouse.	N/D '64 p55
Superstructure under construction at Dillard Rd.	M/A '65 p77
Elvas Br. across American River.	N/D '54 p19
Fort Sutter viaduct under construction (29th-30th Streets).	N/D '64 p52
Underside of Ft Sutter Viaduct.	N/D '66 p24
Retaining wall with exposed aggregate panels.	N/D '66 p25
Georgiana Slough Br. at Walnut Creek over arm of Sacramento Rvr.	J/F '64 p28
I Street Br., Sacramento, official group at ribbon-cutting ceremony.	O '37 p17
I Street span & new approach, and Jibboom St. Viaduct.	O '37 p17
Laguna Creek Br. just north of Elk Grove.	M/A '47 p6
North Sacramento Viaduct (Del Paso Blvd.) [US 40]	D 41 - 14
Equipment tearing up old pavement, and grading for south approach.	D '41 p14
Reinforcing steel columns mark route of viaduct across railroad tracks. Frank W. Clark breaks ground for viaduct.	D '41 p14 Aug '41 p9
Section of Del Paso Blvd. flooded by overflow waters of American River.	F '41 p21
Full width view of completed roadway of North Sacramento viaduct.	O '42 p4
I all width view of completed foadway of North Sacramento viaduct.	∪ ¬∠ p¬

BRIDGES Sacramento, Continued East bound traffic using structure immediately after dedication. O '42 p4 North Sacramento Viaduct; Old wooden trestle which viaduct replaced. J/F '48 p2 Pioneer Memorial Br (W-X Street), I-80 S/O '64 p27+ At early construction stage, Yolo Co. side. S/O '64 p30 Nearly completed substructure of bridge on Yolo Co. side. S/O '64 p30+: Pier construction. Under construction, general M/J '66 p45 N/D '65 p16; Pioneer Memorial Br approach ramps, W. Sacramento., the most extreme example of curved steel girders on a major structure built to date. N/D '66 p25 Completed Pioneer Memorial Br. N/D '66 p27 J/A '59 p5 Rio Vista Br. under construction across the American Rvr. S/O '50 p117 Sacramento-Yolo swing bridge (Sacramento River) ca. 1858. Three Mile Slough Br. with lift raised, old bridge in background. S/O '49 p26 S/O '49 p26 Bridge under construction Tower Br. (M St./Capitol Ave.) over Sacramento River, Sacramento. J/F '64 p31 Watt Ave. Br. across American Rvr. under construction. S/O '61 p25+ Roadway of completed bridge. S/O '61 p28 San Benito Co. Aug '41 p19 Pajaro River; existing narrow bridge, new bridge under construction. San Benito River Br. near Hollister with tower damaged by truck. Mar '38 p5 San Benito River Br. with steel pratt trusses at Hollister, 1912. S/O '50 p121 San Bernadino Co. Base Line Ave; narrow bridge between San Bernadino and Redlands. Jan '39 p1 Cima Rd. Overcrossing, part of Baker Grade project (I-15). S/O '61 p2 City Creek Br. at East 5th St., San Bernadino. J/F '49 p31 City Cr. concrete arch bridge on City Creek Rd. near San Bernadino. M/A '48 p22 I-40 [US 66], Needles; bridge under construction. J/F '58 p57 Kaiser spur overpass. (I-10, San Bernardino Fwy.). J/A '48 p7 M/A '63 p50 Mojave River Br. and Overhear at Victorville Narrows on Rt. 18. Old span now serving as haul road for ore trucks. M/A '63 p50 N/D '54 p12 Monte Vista Ave. freeway structure. Narrow bridge connecting Cajon Pass with San Bernadino Mt. resorts. Jan '39 p7 Red Rock Br. (Colorado River, I-40) [US 66] Last train crossing bridge 3/8/45 after new Santa Fe Br. was completed. J/A '47 p21 Red Rock Cantilever Br. nearing completion in 1890. California portal of Red Rock Br. J/A '47 p22 Old Trails Arch (Bridge 54-18). J/A '47 p22 Santa Ana River Br. at Waterman Ave., San Bernadino. J/F '49 p31 Santa Ana River Br. near Prado Dam outlet under construction. J/A '50 p52 N/D '54 p10 Sixth St. overcrossing, Campus Ave. Br. in Ontario. S/O '58 p48 Victorville Overhead. (I-15). Warm Creek Br. (I-10, Colton). Aug '37 p15 San Diego Co. Agua Hedionda bridges and fill. M/J '53 p12 Buena Vista fill and structures. M/J '53 p3 Cabrillo Br. in Balboa Park, which will span Cabrillo Fwy. (Rt. 163). M/A '46 p7 Coronado Br. S/O '62 p58 Recommended bridge line (4th St. Coronado--Crosby St., San Diego). Architectural drawing of proposed Coronado span. S/O '62 p58 Cottonwood Creek Br., dangerous because roadway is too narrow. Mar '37 p9

BRIDGES San Diego Co., Continued Devils Canyon bridges. J/F '64 p45 Devil's Gate Br. under construction. M/J '63 i.cvr Devils Canyon Br. No. 1. J/F '64 p46 J/F '64 p47 Steel girder being moved into place on Devil's Canyon Br. No. 2. Devil's Canyon Br., winner of AISC award for beauty, 1963-64. J/F '65 p40 I-5 [US 101]; twin viaducts north of four-level interchange. S/O '65 p12 I-5; Oceanside-Carlsbad Fwy. [US 101] One of many overhead structures on freeway. M/J '54 p31 N/D '51 p33 Pier construction for 8th St. Overcrossing in Oceanside. M/J '53 p12 Loma Alta Creek bridges and fill. N/D '50 p17 Los Penasquitos Creek Br. on I-15 [U.S. 395]. M/A '65 p64+ Penasquitos Creek Br. under constriction next to existing bridge. Los Penasquitos Creek Br. N/D '66 p26 J/A '65 i.cvr+ MacKinnon Ave Overcrossing on I-5 north of San Diego. Rt. 67 [Rt. 198]; dangerous alignment and inadequate bridge. F '38 p15 San Diego River bridges under construction (I-15). J/A '60 p29 San Felipe Creek Br. (Rt. 67) damaged by truck N/D '45 p33 San Luis Rey River Br., built in 1929 (Oceanside). S/O '50 p125 San Luis Rev River Br., widening operations. N/D '51 p31 Roadway of existing San Luis Rey River Br. before widening. N/D '51 p31 Santa Margarita River Br., looking south. F '38 p7 Santa Margarita River Br., railroad bridge in background. O '37 p6 San Mateo Cr., construction scene at site of new bridge. M/J '46 p24 M/J '47 p31 Existing and new bridges over San Mateo Creek. Sweetwater River channel bridge, I-5 [Montgomery Fwy.]. J/F '51 p35 Sweetwater River Br. under construction east of Alpine. S/O '51 p38 San Francisco Co. Golden Gate Br. Aerial view of world's largest suspension span showing Waldo approach on Marin side, winding from northern bridgehead over mountains and through tunnel leading down to Waldo Point. May '37 p3 Sweep of bridge from S.F. side, Ft. Mason under arch span in foreground. May '37 p3 Huge redwood logs forming barrier across Waldo Approach were sawed apart by champion saw wielders at close of dedication ceremony. Jun '37 p13 I-280 [Southern Fwy., Rt. 82] Theresa St. Pedestrian Overcrossing under construction. M/J '64 p38 San Francisco Bay Crossings, General Second/parallel Bay Br., borings being taken for. J/F '47 p8 Engineers selected to design and build. M/J '48 p18 Parallel Bridge Plan model, showing San Francisco approaches. N/D '48 p5 Model of San Francisco approaches for a second bay crossing. N/D '48 p6 Model of East Bay connections to Bay Br. and Parallel Bridge. N/D '48 p7 "Southern Crossing" Southern Crossing model, showing 3rd and Army Streets rotary. N/D '48 p4 Gov. Knight conferring with engineer-consultants on Southern Crossing. J/A '54 p45 Projects Engineer Norman C. Raab briefing press on Southern Crossing. J/F '55 p34 Southern Crossing consultants with Frank Durkee and Norman Raab. M/A '55 p57 Southern Crossing experts Norman C. Raab, C. Cheever Hardwick, and George W. Burpee. N/D '56 p38 Representatives of the Dept. of Public Works at press briefing. N/D '56 p38

BRIDGES San Francisco Co., Continued

C	E		Oalda	. J D	. D
San	rran	CISCO-	·Oaklar	ia Bav	br.

n Francisco-Oakiand Bay Br.	
Award from ASCE naming bridge one of "7 Civil Engineering Wonders	
of the U.S."	M/A '58 p23:
Bonds	
Cartoon of CTBA, 1932 from S.F. Chronicle, regarding Bay Br. bonds.	J/A '52 p43
Frank W. Clark at duplicating machine signing Bay Br. bonds.	F '40 p11
CTBA after signing documents authorizing bond sale refinancing.	M/J '44 p2
Dedication, November 1936	
Bridge day before opening, Nov. 12, 1936.	S/O '50 p83
Gov. Merriam using blow torch to sever chain, signalizing opening of	37/5/2/2/
bridge to traffic.	N/D '56 p55
Construction, 1930s	37/5/2/2/2
Expert divers used in laying foundation for bridge caissons.	N/D '56 p55
View from east portal of cantilever section of Bay Br.	N/D '56 p58
Night view during spinning of gigantic cables for the suspension section.	N/D '56 p59
Bridge just after opening to traffic.	N/D '56 p55
Emergency Service	
Tow cars and fire trucks used to provide services	
for stalled motorists on bridge Aug '38 p24;	J/F '46 p22
Emergency crew responding to upholstery fire on span.	J/F '46 p21
Cradle attachment on tow truck provides quick hook-up for auto towing.	J/F '46 p21
Four wheel drive heavy tow truck renders tow service to heavily	T/D / 1 / AA
laden truck and trailer on bridge.	J/F '46 p22
Bay Br. fire crew dousing blaze on span.	M/J '45 p20
Maintenance boat "Active" throwing stream of water onto bridge	3.5/5./1564
during fire drill; Close-up of auxiliary fire pump.	M/J '45 p21+
Fire crew men using water pumped from truck mounted tanks.	M/J '45 p22
Fire truck unit operated by Bay Bridge.	M/J '45 p23
Tow truck operator on radio to dispatcher.	J/A '47 p18
Tow truck equipped with radio cabinet mounted on running board.	J/A '47 p19
Dispatch operator manning radio.	J/A '47 p26
General views of bridge. Jun '39 p3; M/J '44 p3; M/A '58 p24+;	N/D '61 p61
Lighting	M/A 564 40
Internally lighted directional signs on S.F. side of bridge.	M/A '64 p48
Lower deck lighting on West Bay span.	M/A '64 p51
Lower deck lighting on viaduct section of East Bay spans.	M/A '64 p51
Lower deck reconstruction in progress.	J/A '60 p38+
Completed upper deck strengthening.	M/A '64 p50
Control panel of special truck for placing epoxy coal tar material.	M/A '64 p52 M/A '64 p52
Equipment train for resurfacing upper deck. Maintenance	M/A 64 p32
8-1/2 ton gantry designed for bridge maintenance operations.	O '27 p22
15-ton wrecking truck used on bridge.	O '37 p22
Power broom used on bridge	M/J '53 p5 J/F '52 p37
Painting	J/F 32 p3/
"Air analyzer" used to test paint resistance.	Apr '38 p23
"Bird Cage" or truss web scaffolds mounted outside bridge, used to	Арт 36 р23
paint truss members.	S/O '61 n53+
Special narrow Bird Cage used on curved spans of East Bay section.	S/O '61 p53+ S/O '61 p55
Cleaning bridge surfaces before applying new coat of paint.	Apr '40 p18
Gantries, or upper deck travelers, on 3-rail overhead track with air-	Apr 40 pro
powered drive.	S/O '61 p51
powered drive.	5/0 01 p31

BRIDGES San Francisco Co., Continued

des san Francisco Co., Continuca	
Inspection bridge used in painting floor system.	S/O '61 p50
Lower deck travelers used on East Bay section provide platform for	
painting lower deck floor system.	S/O '61 p52
"Magic Carpets" suspended from upper chord used to repaint lower deck	
floor system.	S/O '61 p51
Main cable scaffold.	J/A '61 p7
Main tower scaffold.	J/A '61 p9
Painting crews at work.	Apr '40 p19
Painting finish coat on upper eye bars, E. Bay cantilever structure.	J/A '61 p5
Paining top of lateral bracing in cantilever structure.	J/A '61 p6
Spot-coat painting being applied to tower of E. Bay cantilever section.	J/A '61 p6
Steam-cleaning surface prior to painting.	J/A '61 p10, cvr.
Suspended rope cage	J/A '61 p8
Traveling scaffolding for painting underside of bridge.	J/F '46 p5
Parking facility under bridge, free for 24-hour period to patrons of span.	Jun '37 p25
Port of Oakland overhead section.	D '37 p21
Railway System	
Laying first ties for railway system at easterly edge of span.	D '37 p23
Bridge Engineer C.E. Andrew placing first railway tie in position.	D '37 p23
Drawing on aerial photo of E. Bay electric railway approaches to bridge.	D '37 p21
Control board operating electric routing and switching of bridge trains.	S '38 p24
Mechanical lever system.	S '38 p24
Rear view of control board's complicated wiring system.	S '38 p25
First streamline train crossing bridge, Gov. Merriam at throttle.	O '38 p19
Gov. Merriam shaking hands with railroad workers.	O '38 p19
Where Bay Br. trains will enter and leave the easterly end of span.	May '38 p8
Where trains will leave the westerly end of bridge.	May '38 p9
Elevated track level showing newly erected roof steel.	May '38 p11
View looking down East Bay Crossing showing ties and tracks in place.	May '38 p11
Aerial photo/drawing of bridge and railway terminal.	Jan '39 p16
Lower bridge deck carrying train and truck traffic.	F '39 p7
Section of lower deck with railway tracks removed.	J/A '60 p38
Toll Related	
"Cat's whisker" used to reduce electric shock in autos passing through	
toll gates.	Apr '37 p21
View looking east toward Bay Bridge Toll Plaza.	N/D '46 p3
Gov. Edmund Brown depositing first quarter in automatic toll machine.	J/A '59 p7
Trucks backed up at toll gates, waiting to be weighed before per-axle	
policy took effect; Toll gate area after per-axle tolls went into effect.	J/A '60 p62
Traffic	37/5 / 4 / 4
Bay Br. traffic 1936 and 1946.	N/D '46 p4
Rush our at Bay Br. Toll Plaza.	J/F '67 p24+
Steady stream of traffic (revenue) on bridge.	N/D '47 p1
Upper deck traffic after change to one-way operation.	M/A '64 p50
Treasure Island-Bay Br. HwySee ROUTES	
Truck lane added to lower roadway	T/1 (15 06
Before: traffic on lower deck roadway blocked by waiting trucks.	J/A '45 p26
After: Army convoy proceeds unhampered by waiting trucks.	J/A '45 p26
Traffic at Toll Plaza during Key System Strike.	M/A '54 p28
Ramp system in S.F. showing traffic being partially diverted to lower	3.5/4.654.20
(truck) deck due to strike.	M/A '54 p29
Yerba Buena IslandSee ROUTES	

BRIDGES San Francisco Co., Continued

DRIDGES San Francisco Co., Conunueu	
US 101; Bayshore Fwy.	
17th St. superstructure under construction.	J/F '53 P3
25th St. pedestrian bridge and 23rd. St. vehicular bridge.	J/F '53 p5
9th and 10th St. Viaduct. S/O '54 p3	2; J/F '64 p31
San Joaquin Co.	
Acampo Rd. overcrossing and Pumping Plant (Rt. 99).	M/J '57 p44
Calaveras River overcrossing on I-5 between Stockton and Lodi.	N/D '64 p50
Delta Mendota Br. under construction on Tracy Expressway.	M/A '53 p 28
Grant Line Canal double bascule span drawbridge. J/F '60 p.	
Original Grant Line Canal Br built in 1906.	J/F '60 p56
Jahant Rd. overcrossing (Rt. 99).	M/J '57 p45
Linden Rd Overcrossing after reconstruction of Rt. 99 to full freeway.	J/F '65 p25
Lockford Road Br., diverting canal bridges, Rt. 99 Stockton.	J/A '49 p32
Mokelumne River Br. near Clements, bad approach to.	Mar '39 p11
Mokelumne River Br. on FAS Rt. 901.	M/J '49 p24+
Mokelumne River steel span drawbridge on Rt. 12 (LodiRio Vista).	S '42 p3
Mokelumne Rvr. twin bridges (Rt. 99).	J/A '58 p18
Mormon Slough twin bridges at diverting canal, Stockton.	M/A '50 p12
Mossdale Br. before and after repair of traffic damage.	M/J '45 p6
New Hope Landing Br, traffic hazard on.	Mar '39 p10
Paradise overflow bridge under construction.	S/O '46 p19
San Joaquin Rvr. Br. at Mossdale, built in 1949.	S/O '50 p129
Stanislaus River Br. on FAS Rt. 903 between Modesto and Escalon.	N/D '59 p26
Stanislaus Rvr. between Salida and Ripon, traffic using 2-lane bridge across.	N/D '47p23
Stockton Bypass Structure on under construction (Rt. 99).	S/O '48 p28
Son Luig (Thigno Co	
San Luis Obispo Co.	0/0/50 26
Arroyo Grande Creek twin bridges, US 101.	S/O '59 p36
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902.	S/O '50 p123
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county	S/O '50 p123 S/O '50 p128
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo.	S/O '50 p123 S/O '50 p128 J/A '53 p37
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction.	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study.	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obisp	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ oo. O '38 p2
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obisp N. Paso Robles Overhead under construction.	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ OO. O '38 p2 J/A '57 p7
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obisp N. Paso Robles Overhead under construction. Looking northerly from site of S. Paso Robles Overhead.	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ O '38 p2 J/A '57 p7 J/A '57 p7
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obisp N. Paso Robles Overhead under construction. Looking northerly from site of S. Paso Robles Overhead. Old Creek Br. between Cayucos and Morro Beach.	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ O. O '38 p2 J/A '57 p7 J/A '57 p7 O '38 p2
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obisp N. Paso Robles Overhead under construction. Looking northerly from site of S. Paso Robles Overhead. Old Creek Br. between Cayucos and Morro Beach. Pismo Beach; twin structures carrying freeway over SP RR south of town.	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ O. O '38 p2 J/A '57 p7 J/A '57 p7 O '38 p2 J/F '57 p20
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obisp. N. Paso Robles Overhead under construction. Looking northerly from site of S. Paso Robles Overhead. Old Creek Br. between Cayucos and Morro Beach. Pismo Beach; twin structures carrying freeway over SP RR south of town. Salinas River Br. approaches with sharp reverse curves on poor alignment.	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ O. O '38 p2 J/A '57 p7 J/A '57 p7 O '38 p2
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obisp. N. Paso Robles Overhead under construction. Looking northerly from site of S. Paso Robles Overhead. Old Creek Br. between Cayucos and Morro Beach. Pismo Beach; twin structures carrying freeway over SP RR south of town. Salinas River Br. approaches with sharp reverse curves on poor alignment. Salinas River, Paso Robles.	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ O. O '38 p2 J/A '57 p7 J/A '57 p7 O '38 p2 J/F '57 p20 O '38 p3
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obisp N. Paso Robles Overhead under construction. Looking northerly from site of S. Paso Robles Overhead. Old Creek Br. between Cayucos and Morro Beach. Pismo Beach; twin structures carrying freeway over SP RR south of town. Salinas River Br. approaches with sharp reverse curves on poor alignment. Salinas River, Paso Robles. Present steel pratt truss bridge.	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ OO. O '38 p2 J/A '57 p7 J/A '57 p7 O '38 p2 J/F '57 p20 O '38 p3
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obisp N. Paso Robles Overhead under construction. Looking northerly from site of S. Paso Robles Overhead. Old Creek Br. between Cayucos and Morro Beach. Pismo Beach; twin structures carrying freeway over SP RR south of town. Salinas River Br. approaches with sharp reverse curves on poor alignment. Salinas River, Paso Robles. Present steel pratt truss bridge. Reinforced concrete box girder bridge under construction.	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ OO. O '38 p2 J/A '57 p7 O '38 p2 J/F '57 p20 O '38 p3 J/A '57 p6 J/A '57 p34
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obisp N. Paso Robles Overhead under construction. Looking northerly from site of S. Paso Robles Overhead. Old Creek Br. between Cayucos and Morro Beach. Pismo Beach; twin structures carrying freeway over SP RR south of town. Salinas River Br. approaches with sharp reverse curves on poor alignment. Salinas River, Paso Robles. Present steel pratt truss bridge. Reinforced concrete box girder bridge under construction. San Luis Obispo Creek Br. and old, narrow bridge structure.	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ OO. O '38 p2 J/A '57 p7 J/A '57 p7 O '38 p2 J/F '57 p20 O '38 p3 J/A '57 p6 J/A '57 p34 Aug '41 p12
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obisp N. Paso Robles Overhead under construction. Looking northerly from site of S. Paso Robles Overhead. Old Creek Br. between Cayucos and Morro Beach. Pismo Beach; twin structures carrying freeway over SP RR south of town. Salinas River Br. approaches with sharp reverse curves on poor alignment. Salinas River, Paso Robles. Present steel pratt truss bridge. Reinforced concrete box girder bridge under construction. San Luis Obispo Creek Br. and old, narrow bridge structure. Santa Rosa St. (Rt. 1) Crossing of San Luis Obispo Bypass, partially constructe	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ OO. O '38 p2 J/A '57 p7 O '38 p2 J/F '57 p20 O '38 p3 J/A '57 p6 J/A '57 p6 J/A '57 p34 Aug '41 p12
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obisp N. Paso Robles Overhead under construction. Looking northerly from site of S. Paso Robles Overhead. Old Creek Br. between Cayucos and Morro Beach. Pismo Beach; twin structures carrying freeway over SP RR south of town. Salinas River Br. approaches with sharp reverse curves on poor alignment. Salinas River, Paso Robles. Present steel pratt truss bridge. Reinforced concrete box girder bridge under construction. San Luis Obispo Creek Br. and old, narrow bridge structure. Santa Rosa St. (Rt. 1) Crossing of San Luis Obispo Bypass, partially constructe	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ OO. O '38 p2 J/A '57 p7 O '38 p2 J/F '57 p20 O '38 p3 J/A '57 p6 J/A '57 p6 J/A '57 p34 Aug '41 p12 J/A '53 p37
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obisp N. Paso Robles Overhead under construction. Looking northerly from site of S. Paso Robles Overhead. Old Creek Br. between Cayucos and Morro Beach. Pismo Beach; twin structures carrying freeway over SP RR south of town. Salinas River Br. approaches with sharp reverse curves on poor alignment. Salinas River, Paso Robles. Present steel pratt truss bridge. Reinforced concrete box girder bridge under construction. San Luis Obispo Creek Br. and old, narrow bridge structure. Santa Rosa St. (Rt. 1) Crossing of San Luis Obispo Bypass, partially constructe San Mateo Co. Broadway overcrossing on US 101, Burlingame, looking north.	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ OO. O '38 p2 J/A '57 p7 J/A '57 p7 O '38 p2 J/F '57 p20 O '38 p3 J/A '57 p6 J/A '57 p6 J/A '57 p34 Aug '41 p12 d. J/A '53 p37
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obisp N. Paso Robles Overhead under construction. Looking northerly from site of S. Paso Robles Overhead. Old Creek Br. between Cayucos and Morro Beach. Pismo Beach; twin structures carrying freeway over SP RR south of town. Salinas River Br. approaches with sharp reverse curves on poor alignment. Salinas River, Paso Robles. Present steel pratt truss bridge. Reinforced concrete box girder bridge under construction. San Luis Obispo Creek Br. and old, narrow bridge structure. Santa Rosa St. (Rt. 1) Crossing of San Luis Obispo Bypass, partially constructe San Mateo Co. Broadway overcrossing on US 101, Burlingame, looking north. Butler Rd. overcrossing on US 101, South S.F.	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ OO. O '38 p2 J/A '57 p7 O '38 p2 J/F '57 p20 O '38 p3 J/A '57 p6 J/A '57 p34 Aug '41 p12 J/A '53 p37
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obisp N. Paso Robles Overhead under construction. Looking northerly from site of S. Paso Robles Overhead. Old Creek Br. between Cayucos and Morro Beach. Pismo Beach; twin structures carrying freeway over SP RR south of town. Salinas River Br. approaches with sharp reverse curves on poor alignment. Salinas River, Paso Robles. Present steel pratt truss bridge. Reinforced concrete box girder bridge under construction. San Luis Obispo Creek Br. and old, narrow bridge structure. Santa Rosa St. (Rt. 1) Crossing of San Luis Obispo Bypass, partially constructe San Mateo Co. Broadway overcrossing on US 101, Burlingame, looking north. Butler Rd. overcrossing on US 101, South S.F. Dumbarton Br.; Frank Durkee signing bonds for purchase of using	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ OO. O '38 p2 J/A '57 p7 J/A '57 p7 O '38 p2 J/F '57 p20 O '38 p3 J/A '57 p6 J/A '57 p34 Aug '41 p12 J/A '53 p37 M/J '49 p2 M/J '49 p3
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obispon. N. Paso Robles Overhead under construction. Looking northerly from site of S. Paso Robles Overhead. Old Creek Br. between Cayucos and Morro Beach. Pismo Beach; twin structures carrying freeway over SP RR south of town. Salinas River Br. approaches with sharp reverse curves on poor alignment. Salinas River, Paso Robles. Present steel pratt truss bridge. Reinforced concrete box girder bridge under construction. San Luis Obispo Creek Br. and old, narrow bridge structure. Santa Rosa St. (Rt. 1) Crossing of San Luis Obispo Bypass, partially constructe San Mateo Co. Broadway overcrossing on US 101, Burlingame, looking north. Butler Rd. overcrossing on US 101, South S.F. Dumbarton Br.; Frank Durkee signing bonds for purchase of using multiple-signing machine.	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ OO. O '38 p2 J/A '57 p7 J/A '57 p7 O '38 p2 J/F '57 p20 O '38 p3 J/A '57 p6 J/A '57 p34 Aug '41 p12 J/A '53 p37 M/J '49 p2 M/J '49 p3 S/O '51 p57
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obispon. N. Paso Robles Overhead under construction. Looking northerly from site of S. Paso Robles Overhead. Old Creek Br. between Cayucos and Morro Beach. Pismo Beach; twin structures carrying freeway over SP RR south of town. Salinas River Br. approaches with sharp reverse curves on poor alignment. Salinas River, Paso Robles. Present steel pratt truss bridge. Reinforced concrete box girder bridge under construction. San Luis Obispo Creek Br. and old, narrow bridge structure. Santa Rosa St. (Rt. 1) Crossing of San Luis Obispo Bypass, partially constructe San Mateo Co. Broadway overcrossing on US 101, Burlingame, looking north. Butler Rd. overcrossing on US 101, South S.F. Dumbarton Br.; Frank Durkee signing bonds for purchase of using multiple-signing machine. Pedestrian overpass in S. San Francisco, showing 120-ft. clear span across US	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ OO. O '38 p2 J/A '57 p7 J/A '57 p7 O '38 p2 J/F '57 p20 O '38 p3 J/A '57 p6 J/A '57 p6 J/A '57 p34 Aug '41 p12 J/A '53 p37 M/J '49 p2 M/J '49 p3 S/O '51 p57 M/J '49 p1
Arroyo Grande Creek twin bridges, US 101. Atascadero; bridge built by SP in 1902. Atascadero Creek Br. built by county Buena Vista Crossing at northerly end of San Luis Obispo. Cuesta Overhead superstructure under construction. Leffingwell Creek Br. on Rt. 1 near Cambria. being used in paint study. Narrow bridge restricted for speed and load on US 101 south of San Luis Obispon. N. Paso Robles Overhead under construction. Looking northerly from site of S. Paso Robles Overhead. Old Creek Br. between Cayucos and Morro Beach. Pismo Beach; twin structures carrying freeway over SP RR south of town. Salinas River Br. approaches with sharp reverse curves on poor alignment. Salinas River, Paso Robles. Present steel pratt truss bridge. Reinforced concrete box girder bridge under construction. San Luis Obispo Creek Br. and old, narrow bridge structure. Santa Rosa St. (Rt. 1) Crossing of San Luis Obispo Bypass, partially constructe San Mateo Co. Broadway overcrossing on US 101, Burlingame, looking north. Butler Rd. overcrossing on US 101, South S.F. Dumbarton Br.; Frank Durkee signing bonds for purchase of using multiple-signing machine.	S/O '50 p123 S/O '50 p128 J/A '53 p37 May '38 p7 J/F '62 p26+ OO. O '38 p2 J/A '57 p7 J/A '57 p7 O '38 p2 J/F '57 p20 O '38 p3 J/A '57 p6 J/A '57 p34 Aug '41 p12 J/A '53 p37 M/J '49 p2 M/J '49 p3 S/O '51 p57

BRIDGES, San Mateo Co., Continued

BRIDGES, San Mateo Co., Continued	
San Mateo-Hayward Br.	
Frank Durkee signing bonds for purchase of using multiple-signing machine.	S/O '51 p57
flag-raising ceremony.	S/O '51 p11
truss spans and lift span	M/J '52 p14
Gov. E. Brown and Lt. Gov. Glenn M. Anderson with sketch of proposed	1
high-level fixed span.	S/O '61 i.cvr.
High-level span under construction.	J/F '63 p25
Model of proposed San Mateo-Hayward Br.	S/O '64 p65
Santa Barbara Co.	r
Bridge operations near the groves on US 101 [Rt. 2] near Buelton where every	
care is being taken to preserve trees and natural scenic beauty.	O '38 p23
Canada del Rufugio bridge under construction.	O '41 p3
Carpinteria Creek Br. (US 101)	M/A '55 p43
Castillo St. undercrossing.	M/A '64 p3
Cold Springs Canyon Br. under construction (Rt. 154)	M/J '64 p15+
Completed structure. S/O '64 p59; N/D '64 p54; J/F '65 p40;	J/F '67 p37
Dos Pueblos Cr., US 101	0/1 0/ ps/
Old narrow bridge which was replaced by modern structure.	O '41 p21
Before/after views of old and new bridges.	Mar '42 p10+
Franklin Creek Br. (US 101)	M/A '55 p43
Gaviota Creek Br. at Gaviota Gorge.	M/A '51
Huasna River Br. under construction on Rt. 166, Santa Maria.	M/J '59 p17+
Completed bridge. N/D '60 p63;	J/F '64 p29
Mission St. railroad bridge and undercrossing.	M/A '64 p4
Narrow bridge on US 101 carrying heavy truck traffic.	O '39 p17
Narrow underpass and timber bridge, on section of US 101 north of Guadalupe.	O '38 p3
Nojoqui Creek Br. conforms perfectly to the width and curvature of roadway.	Jun '39 p8
Nojoqui Creek bridges, built 1949.	S/O '50 p129
Santa Maria River Br.	5/0 50 p12)
Santa Maria River, steel truss bridge across old channel of.	Jan '43 p13
Traffic crossing old bridge	J/F '63 p7
Twin bridges carrying traffic across Santa Maria Rvr. channel.	J/F '63 p7
Aerial view of twin bridges under construction.	J/F '63 p8
Santa Ynez River Br. near Lompoc, profile view.	Jun '39 p23
New approach road to bridge.	Jun '39 p2
Old 1885 bridge it replaced.	Jun '39 p23
View of bridge ca. 1900	S/O '50 p121
Dedication for Santa Ynez River Br., 1917.	J/A '65 p31
Sisquoc River Br. near Garey replaced older flood damaged structure.	N/D '60 p34
View looking westerly across Arroyo Quemado, old narrow bridge at left.	J/F '50 p30
Fill constructed across Arroyo Quemado for new northbound lane.	J/F '50 p30
View of embankment, existing bridges across Arroyo Hondo.	J/F '50 p30
Santa Clara Co.	3/1 30 p30
Coyote Cr. bridges in foreground.	J/A '47 p8
Coyote Creek bridges under construction, I-880 [Eastshore Fwy].	J/F '53 p8
Magdalena Ave. Undercrossing, Junipero Serra Fwy.(I-280).	N/D '66 p27
Marsh Rd. Overcrossing on Bayshore Fwy.(US 101) south of Redwood City.	N/D '59 p25
Mora Dr. Overcrossing on Junipero Serra Fwy. (I-280).	N/D '66 p25
Pajaro River Br. (US 101).	Jan '42 p15
Raised division strip on deck of new bridge contrasting with narrow road-	12 p10
way of old span.	Jan '42 p15
	P

California Highways and Public Works

PHOTOGRAPH INDEX 1937-1967

BRIDGES, Santa Clara Co., Continued Sidehill viaduct on Rt. 17 (Los Gatos-Santa Cruz Hwy.) Driving steel "H" piles with crane driver and forming piles of bent caps before pouring reinforced concrete caps on sidehill viaduct project. May '40 p10 Forming of concrete caps on steel "H" piles. May '40 p11 Difficult widening job due to close proximity to railroad track. May '40 p11 May '40 p12 Viaduct pile driving operations. Completed structure. S '40 p9 Santa Cruz Co. Pajaro River Br at Watsonville, 1915 S/O '50 p121 San Lorenzo Br on Bear Creek Rd. near Boulder Creek, old span. J/A '54 p44 New San Lorenzo River Br constructed under FAS Program. J/A '54 p44 Shasta Co. Antler Br. under construction (Sacramento River, I-5) [US 99]. Jan '41 p19 View of 50-ft. roadway. Aug '41 p3 M/A '58 p8 Completed bridge J/A '66 p38 Bridge between Deschutes Rd. and Rt. 44. Dersch Rd. [FAS Rt. 1350], outmoded through-truss bridge. J/A '66 p39 Modern highway bridges on Dersch Rd. J/A '66 p39 Dog Creek Br., old bridge with poor approach alignment. J/F '57 p24 New Dog Creek Br. with approaches under construction. J/F '57 p24 Clough Cr. one-way bridge on old highway (Rt. 44). M/J '65 p20 Lake Britton Br. on Forest Rt. 77 May '40 p25 Oak Run Creek, Rt. 44; old 4-span timber bridge that had to be replaced. M/A '44 p19 Single span steel railroad bridge that replaced it. M/A '44 p19 M/A '44 p28 18-ft. roadway carrying highway across Oak Creek. S/O '50 p128 Pit River Arch, longest concrete span in California in 1916, now submerged. Pit River Br. (Shasta Lake, I-5) [US 99] Sketch on photo of site showing planned structure. N'39p2+Mar '41 p14, C First steel construction. Mar '41 p15 Top steel girder showing workman and safety nets. Gap half closed between great central piers. S '41 p2, C S '41 p2, C Existing concrete bridge that will be submerged. Under construction showing safety nets, old span in background. J/A '52 p32 View of nearly completed bridge from new approach road. S '41 p2 Ground-eye view of bridge construction. S '41 p2 Huge girder that required 3 freight cars to transport. S '41 p6 Central span being placed, connecting world's highest double deck structure. D '41 p12 D '41 p13 Connecting the last span. Completed double deck bridge. F '43 p2+; J/A '45 p5; M/J '52 p11; M/A '58 p8 Stream view of bridge J/A '52 p32 Sacramento River Br. (Redding, I-5) [US 99] after widening. N/D '61 i.cvr.; J/F '62 p15 Shasta River Br. (I-5) [US 99], deteriorated railing on. M/A '46 p23 Mar '38 p13 Sulfer Creek Br., new bridge with chain guard [Pacific Hwy.]. Whiskey Creek Br., under construction (Rt. 299 relocation). N/D '61 p3; M/A '62 p33 Sierra Co.; Salmon Creek Br. on Yuba Pass Hwy. section of Rt. 49. M/J '65 p5 Siskiyou Co. Dunsmuir Br. (Sacramento River, I-5) [US 99], built 1915. S/O '51 p4 Mar '37 p9 Klamath River bridge near Seidad. Pit River Br. near Dunsmuir, gasoline tank truck crashes and burns. Mar '38 p4 Salmon River Br. (covered), removed in 1942. M/J '52 p11 Salmon River Br. at Somesbar, before/after being rebuilt Jan '43 p14 Scott River Br. replacement span (Rt. 3 [Rt. 82] north of Ft. Jones) N/D '59 p17

BRIDGES, Continued Solano Co.

Solalio Co.	
Benicia-Martinez Br.	
Sketch of proposed bridge.	M/J '59 p13
Railroad bridge across Carquinez Strait between Benicia and Martinez,)
site of future BeniciaMartinez Br.	M/J '60 i.cvr.
Pier construction.	M/J '60 p35
Sketch of bridge and Benicia interchange superimposed on photo of sit	e. M/J '60 p37
Aerial view of bridge site.	M/J '60 p37
Under construction. N/D '60	_
Gov. Brown and crowd at dedication.	S/O '62 p2
Completed bridge S/O '62	-
Cordelia Wye; railroad bridge under construction.	J/A '51p63
I-80 [US 40]; bridge units near Midway looking toward Dixon.	J/F '47 p27
I-80 [US 40], Vacaville; narrow bridge and street passing two school house	-
New bridge where existing highway enters city on curve.	F '37 p5
Napa River Br.	1 37 ps
Substructure for new bridge parallel to existing span.	J/A '63 p7+
Sketch of completed bridge.	J/A '63 p7
Prestressed precast pile being placed.	J/A '63 p5
Steel forms used for casting pre-tensioned piles.	J/A '63 p8
Completed Tower 11 footings and struts.	J/A '63 p9
Putah Creek. companion bridges under construction (DixonDavis, I-80) [I	
One of two one-way Putah Creek bridges.	O '42 p11
Rindler Creek Br. (American Canyon, I-80) [US 40] to be replaced by fill.	M/A '43 p17
Large metal culvert being installed to carry creek waters through fill.	M/A '43 p17
Rio Vista Br. (Rt. 12) [Rt. 53]	J/F '46 p16
Old and new highway bridges across Sacramento River	J/F '46 p16
Rio Vista lift-span bridge.	M/J '60 p52+
Artists concept of how merchant vessel struck Rio Vista Br.	J/F '67 p44
Opening in crossing after missing span was carried away, and barge	1/5 (7 - 44
mounted derrick removing damaged members.	J/F '67 p44
Close-up view of damage.	J/F '67 p44
Sonoma Co.	0 (20 2
Jenner, narrow wooden bridge on Rt. 1 [Rt. 56, Coast Rt.] near.	S '38 p3
Jimstown Br. over Russian River.	J/F '50 p54+
Petaluma Creek Br. under construction. M/J '54 p38+; M/J '5	1 /
Russian River Br at Hacienda, existing span which is being replaced.	M/A '47 p2
Sidehill viaduct carrying highway across slide area along Russian River.	D '40 p6
Two sidehill viaducts along Russian River under construction.	D '40 p7
Trenton Rd. highway bridge across Mark West Cr. and two roads.	N/D '61 p45
Stanislaus Co.	
Grayson Road Br. across San Joaquin Rvr., built in 1892.	J/F '64 p35
New Grayson Road Br.	J/F '64 p36
Greer Road Br. across Stanislaus Rvr. between Turlock and Oakdale.	M/J '61 p67
Laird Slough replacement bridge.	J/F '64 p35
Stanislaus River Br. between Modesto and Escalon.	N/D '59 p26
Tuolumne Rvr. bridge and old structure it replaced, near Empire.	N/D '48 p18
Close up of new bridge.	N/D '48 p19
Tuolumne River Br. on GreerAbers Rd. near Turlock.	S/O '62 p53

S. H. G.	
Sutter Co.	3.5/4.65040
Cross Canal Br. on El Centro Blvd, Yuba City.	M/A '50 p48
Feather River Br. (Marysville-Yuba City) Br.	. (20. 2
Narrow bridge with restricted speed for loads over ten tons.	Aug '38 p2
Pier construction, looking toward Marysville.	S/O '46 p22
Completed piers looking toward Yuba City.	S/O '46 p22
Steel superstructure being erected.	M/J '47 p21
Four-lane divided approach bridge.	M/J '47 p21
Narrow existing bridge connecting Marysville and Yuba City.	M/J '47 p25
Steel bridge which replaced old span downstream.	S/O '47 p22
Attractive 4-lane divided approach on Marysville side of Feather River.	S/O '47 p23
Official group at Feather Rvr. bridge dedication.	S/O '47 p31
Steel bridge which replaced old span downstream.	S/O '47 p22
Yuba City approach to new bridge	S/O '47 p23
Official group at dedication.	S/O '47 p31
Narrow bridge with short site distance on part of Rt. 99 [US 99W].	Aug '38 p3
Nicolaus Br. across Feather River, which replaced span destroyed in 1955 flood.	J/A '59 p54:
Sutter By-Pass Br, Rt. 20 [TahoeUkiah Lateral]	
New reinforced concrete bridge.	N '38 p13+
Bridge in flood water conditions.	N '38 p13
Jumbo moving falsework unit of deck span.	N '38 p13
Tehama Co.	
Blue Tent Creek Br. (I-5) [US 99].	Mar '41 p17
Dibble Creek concrete slab bridge (I-5) [US 99].	Mar '41 p17
Hayfork Creek bridge; old, narrow, and posted.	Mar '37 p8
Narrow bridge requires careful driving.	Jul '38 p1
Oregon Gulch timber bridge, not safe for legal loads.	Mar '37 p8
Paynes Creek Br. at Dales Station.	N/D '49 p8
Red Bluff Br., comparison of new, wide railroad bridge with narrow old structure.	S '38 p11
Red Bluff; timber bridge built in 1884.	Mar '37 p8
Reeds Creek Br near Red Bluff.	N/D '49 p8
Sacramento River Br. at Red Bluff, collapsed.	Mar '38 p5
Thomas Creek Br. at Paskenta showing wreckage of old span on right.	N/D '49 p8
Trinity Co.	
Log stringer across Trinity Rvr. on private road near Douglas City built in 1945.	S/O '50 p98
Weaver Creek Br., old span which lost a span in winter 1952 flood.	N/D '53 p27
Substructure of new bridge;	N/D '53 p28
New Weaver Creek Br.	N/D '53 p28
Tulare Co.	
Depression Ditch, temporary timber cut-off wall.	J/A '45 p20
Kingsburg; Rt. 99 crossing Kings River.	S/O '58 p42
Outside Cr., Rt. 198 [Rt. 10], concrete drop structure.	J/A '45 p20
S. Fork Tule River Br. under construction on relocated Rt. 190.	S/O '58 p42
White River Br. under construction.	Jul '40 p22
Tuolumne Co.	
Big Oak Flat underpass below tracks of Hetch Hetchy RR, below legal clearance.	Mar '39 p10
Stephens Bar steel truss bridge across Tuolumne River, 1949.	J/F '53 p19

Dribges, Continued	
Ventura Co.	
Bridges needing improvement/replacement	T (40 44
Auxiliary props serve as temporary expedients to permit use of old bridge.	F '38 p14
One-way bridge on state highway over San Marcos Pass.	D '38 p3
Sharp turn at bridge on Rt. 33 [Rt. 138] between Maricopa and Ojai.	D '38 p2
Piru Creek; narrow, steel through-truss bridge between Santa Paula and Ventura.	D '38 p3
Saticoy Br. across Santa Clara Rvr.	J/A '57 p27
Connection between all-through truss bridge and new concrete bridge.	J/A '57 p27
Washed out detour bridge and detour during Saticoy Br. reconstruction, 1939.	J/A '57 p28
Southwest approach to bridge washed out during flood of 1944.	J/A '57 p28
Prestressed girders at casting bed.	J/A '57 p29
View along detour bridge and old span.	J/A '57 p29
Sespe Creek Br.	M/A '55 p53
Official party at ribbon-cutting ceremony.	M/A '55 p53
Willard Br. (Santa Clara Rvr., Santa Paula)	S/O '53 p54
Engineer's office being moved across new Willard Br.	S/O '53 P43
Yolo Co.	
Knights Landing Br., traffic signal used in one-way traffic control on.	J/A '49 p29
Monticello Br., a cut-stone arch bridge across Putah Creek, ca. 1896.	S/O '50 p91
Close-up of Monticello Br.	S/O '50 p122
Subway under tracks of Southern Pacific near Davis, newly completed.	F '41 p25
Yolo Causeway across Yolo Bypass on I-80 [US 40].	
Yolo Causeway before redecking	Jun '40 p16
Redecking operations underway, traffic using two of four lanes.	Jun '40 p17
Construction on bridge-fill freeway crossing of Yolo Bypass.	N/D '61 p16
New eastbound Yolo Causeway.	M/J '62 p44
View from between new twin parallel structures.	M/J '62 p45
Aerial view of Yolo Causeway project.	M/J '62 p46
Erecting deck units on west Yolo Causeway.	M/J '62 p47
Substructure of Yolo Causeway ready for deck units.	M/J '62 p48
Contractor's yard for cutting deck units.	M/J '62 p49
Westbound lanes of Yolo Causeway under construction.	N/D '62 p18
Yuba Co.	
Feather River Br. (Marysville-Yuba City)See Sutter Co.	
Yuba River Br. under construction at Marysville s. city limits, Rt. 65 [US 99E].	J/A '59 p25
BUILDINGS	
Chino Institution buildings	
Administration Building.	S '41 p16
Barber shop, laundry and bath house.	S '41 p11
Mess Hall; Westerly dormitory.	S '41 p11
Observation cell block.	S '41 p11
Humboldt Co.; new Dist. 1 office building wing at 1656 Union St. in Eureka.	S/O '65 p55
Los Angeles Co.	1
Aerial view of downtown. S/O '61 p32, 40+; J/A '64 p48; M/A '65 p31;	J/F '67 p28;
California Bank Building at 6th and Spring St.	S/O '61 p41
California Hospital, model of new wing.	S/O '61 p42
Dodger Stadium, model of.	S/O '61 p35
Exposition Park showing Los Angeles Coliseum and Sports Arena.	M/J '66 p15
Hollywood Bowl during evening concert.	M/J '66 p13
Los Angeles Chinatown at night; Portuguese Bend section.	M/J '66 p13

BUILDINGS, Continued	
Los Angeles civic center and vicinity, 1953.	M/A '64 p16
Los Angles civic center showing addition of buildings in mall area, 1964.	M/A '64 p17
Los Angeles Civic Center, 1933.	M/A '65 p40
Los Angeles Civic Center, 1953, 1964.	M/A '65 p40+
L.A. Co. Courthouse.	S/O '61 p41
L.A. Co. Hall of Administration.	S/O '61 p40
L.A. Co. Hall of Records under construction.	S/O '61 p41
Los Angeles International Airport.	M/J '66 p12
Los Angeles Music Center.	M/J '66 p15
L.A. Co. Men's Detention Center adjacent to Union Station, sketch of.	S/O '61 p37
Music Center at Civic Center, sketch of proposed building	S/O '61 p37
Occidental Life Building, model of.	S/O '61 p35
Pacific Telephone and Telegraph Building on S. Grand Ave., mosaic in front of.	S/O '61 p44
Police Facilities Building at 150 N. Los Angeles St.	S/O '61 p40
Proposed 35-story building at 333 W. 6th St.	S/O '61 p35
Public Health Building and surrounding park in Civic Center.	S/O '61 p31
Security First Nat. Bank, proposed new addition to farmers and merchants branch.	S/O '61 p43
Signal Oil Building on Wilshire Blvd.	S/O '61 p40
Southern Counties Gas Co. Building at 8th and Flower St.	S/O '61 p41
State Highway Building in Los Angeles	S/O '49 p20
S.V. Cortelyou and Fred J. Grumm at dedication.	S/O '49 p20
Tishman Building and Statler Hilton Hotel on Wilshire Blvd.	S/O '61 p40
Union Oil Center Building along Harbor Fwy.	S/O '61 p29
Moving Buildings for right-of-way	5/0 01 p2)
Alameda Co.	
Airplane hangar being mover for Webster St. Tube.	N/D '59 p42
Building before move.	N/D '59 p43
Supplementary asphalt ramp built to accommodate warehouse rolling stock.	N/D '59 p43
Section of floor of old building which sank beneath foundation in places.	N/D '59 p43
El Dorado Co.; Placerville Shakespeare Club building being moved.	J/F '52 p34
Christian Science Church being moved.	J/F '52 p34
German Lutheran Cross Church moving	- P-
View from church tower during move.	J/F '48 p25
Church en route to new site.	J/F '48 p26, 27
Group of on-lookers observing move.	J/F '48 p28
South corner of front of church, showing arraignment of supporting timbers,	···· re p=s
shoes, rollers and rails.	J/F '48 p30
Church being towed longitudinally along city streets with the newly	· · · · · · · · · · · · · · · · · · ·
constructed basement and concrete foundation in foreground.	J/F '48 p31
Gold Rush-era architecture, examples ofSee also HISTORY, Places, etc.	M/J '66 p27, 45
Los Angeles Co.	
Apartment building cut into five units to facilitate moving.	M/A '56 p40
Apartment house in process of being reassembled at its new location.	M/A '56 p69
Fully reassembled at new location.	M/A '56 p69
Frame residence prior to relocation; Same residence after relocation.	M/A '56 p70
Apartment building moved to corner of Rosewood and New Hampshire	111111 00 p / 0
Ave. in L.A.	M/J '48 p14
Craftsman home before removal; in new location, considerably altered.	M/J '49 p36
Demolition of Hotel Philben for freeway clearance in Los Angeles.	M/A '58 p22
Fire station in city of L.A. blocked up before being moved.	M/A '58 p22
Same building in new location.	M/A '58 p23

BUILDINGS, Continued

JILDINGS, Continued	
House after being moved 15 miles to new lot; House one year later.	J/A '52 p42
Fish pond in center of home's garden.	J/A '52 p43
Frame dwelling being moved from old location.	M/J '48 p15
Lots in L.A. area displaying homes that are for sale and ready to be moved.	M/A '56 p71
Queen Anne home in downtown L.A.; after removal, drastically changed.	M/J '49 p38
3-story commercial building with apartments above, at original location;	
Same building with stores removed from underneath, at new location.	M/J '49 p40
Single-story bungalow at old location; after relocation, completely altered.	M/J '49 p36
Spanish-style home at original location; at new location, very altered.	M/J '49 p40
2-story house at original location; remodeled at new location.	M/J '49 p36
2-story home before removal; same home after relocation, very altered.	M/J '49 p38
2-story duplex before removal; at new location with slight changes.	M/J '49 p40
Victorian home at old location; at new location, showing many	1
architectural changes.	M/J '49 p36
San Joaquin Co.; moving Pacific T&T Co.'s brick repeater station for	1
Ripon-Manteca Fwy.	N/D '53 p26
Shasta Co.; Anderson before and after right-of-way clearance for US 99.	S/O '51 p10
Sacramento	S/S CIPIO
Headquarters Laboratory building, cornerstone-laying ceremony.	J/A '58 p15
Materials and Research Dept. headquarters laboratory, exterior.	J/F '59 p57
First highway laboratory built at State Fairgrounds, 1913.	N/D '52 p47
Public Works Building [Transportation Building].	Jun '37 p19
Public Works Annex.; Chester H. Warlow (CHC) laying cornerstone.	N/D '52 p58
State Business and Professional Building [Legislative Offices].	Apr '40 p13
State Capitol Building	Арг 40 р13
Old cast iron columns.	S/O '49 p38
Reconstruction wall after removal of semicircular wing from east side.	S/O '49 p39
Strengthening center brick wall below second floor with gunite.	S/O '49 p39
4-floor level, showing box girders at cut line.	S/O '49 p40
Tractor operating on 4th. floor during demolition operations.	S/O '49 p41 S/O '49 p42
	S/O '49 p42 S/O '49 p60
Partial view of the foundations for new wing.	S/O 49 poo
San Bernadino; State Division of Hwys. Office building	N/D '50 -50
Excavation started on new building April 17, 1951.	N/D '52 p50
June 13, 1951, ready to wrap up basement section of east wing.	N/D '52 p50
Front view of old building, which serves as main entrance to new structure.	N/D '52 p50
Completed building.	N/D '52 p50
Front entrance to new expanded building.	S/O '61 p73
Guests in lobby prior to touring new building.	S/O '61 p73
San Francisco Bay Area	a.a
Cow Palace and environs. S/O '51 p54; S/O '54 p43;	S/O '55 p33
Candlestick Park and vicinity on opening day of baseball season, 1963.	M/J '63 p25
Psychiatric Clinic, U.C. Medical School; sketch of proposed building	Jan '40 p13
State office building; Gov. Knight and official party at ground-breaking.	S/O '57 p57
Transbay Transit Terminal [Bay Br. Railway Terminal Building]	
Drawings of proposed terminal building. Mar '37 p17; Aug '37 p27;	Jan '38 p27
Center unit well under construction, and streetcar ramp.	May '38 p10
Scene at official opening and dedication.	F '39 p6
One of four passenger platforms on upper terminal level.	F '39 p7
Mezzanine concourse entered from street car ramp, and ground-floor	
waiting rooms.	F '39 p7
Frank W. Clark delivering dedication address.	F '39 p8

BUILDINGS , Continued	
Terminal Plaza showing trolley car loop ramp to mezzanine level,	
and street entrances for pedestrians and automobile passengers.	F '39 p9
Official party at dedication.	F '39 p9
New stairway flanked by escalators.	J/F '60 p59
Bus loop connection with Bay Br. and freeway approach ramps.	J/A '60 p35, 41
Front of Transbay Transit Terminal.	J/A '60 p36
Passengers boarding busses in remodeled terminal.	J/A '60 p37
CALIFORNIA HIGHWAY COMMISSION	
California and Arizona commissioners at joint session in San Diego.	M/A '45 p23
1911 CHC.	J/A '61 i.cvr.
1937 CHC, group photo.	S '37 p11
1958 CHC in session.	S/O '58 p32+
1961 CHC.	J/A '61 i.cvr.
1965 CHC in session. CHC with Director of Public Works C.H. Purcell.	M/J '65 i.cvr.
CHC with Frank W. Clark. Aug '39 p13;	S/O '43 p3 Apr '39 p7
CHC at work on 1956-57 budget.	J/A '55 p46
CHC at April meeting in Sacramento.	N/D '65 p2
CHC, staff members, Dept. of Hwys. officials, city and county representatives,	14/D 03 p2
and private citizens at a regular monthly meeting.	N/D '60 p3
Chester H. Warlow and James A. Guthrie taking oath of office.	J/F '57 p43
Hopkins, Harry A., Chairman, addressing Administration Committee of AASHO at	1
annual convention in San Francisco.	F '37 p17
Individual members ofSee PEOPLE INDEX, Non-Employees	
Joint meeting of CHC and California State Park Commission in session.	M/A '64 p36+
Members first State Highway Commission appointed Aug. 9, 1911.	S '37 p11
San Francisco Chamber of Commerce and CHC N/D '52 p55; S/O '53 p45;	S/O '55 p50
State Chamber of Commerce and CHC. S/O '49 p9; J/A '51 p27;	G/O/60 40
J/A 52 p63; J/A '53 p54; S/O '54 p44; S/O '55 p54+;	S/O '60 p40
Tours made by	0/0 /55 52
CHC inspecting Southern California freeways	S/O '55 p53
CHC on bus tour of San Francisco area highways. Northern California; CHC at luncheon in Garberville.	J/F '59 p14 J/A '59 p17
Redwood Empire tour with governor	J/A 39 p17
CHC members with Gov. Earl Warren on tour of Redwood Empire.	S/O '45 p1
Gov. Warren and members of State Park Commission.	S/O '45 p31
San Joaquin Valley tour	5/ C 15 p3 1
CHC viewing Tulare bypass.	J/A '52 p55
Ford Chatters and A.L. Evans of the <i>Lindsay Gazette</i> with James A. Guthrie.	J/A '52 p55
CHC and group at Madera.	J/A '52 p55
Touring party making stop at Fresno	J/A '52 p55
Director Frank Durkee addressing group at Bakersfield.	J/A '52 p55
CONVICT LABOR	
Early day prison road camp, ca. 1920s.	M/A '49 p4
Hand labor methods of construction in mountainous areas with inmate labor	1v1/71 +3 p+
Track and dump-car in Shasta Co., 1916.	M/J '49 p26
Team, plows, and Fresno scrapers along Smith River in Del Norte Co., 1923.	M/J '49 p26
Finishing roadway with horses and carts along Klamath River, Siskiyou Co., 1920.	M/J '49 p27
Excavation teams and slip scrapers in Mendocino Co., 1916.	M/J '49 p27
Discussion to the Discussion of the Discussion o	M/I (40 :: 27

Pioneering trail on N. Fork of Yuba River, Sierra Co., 1916.

M/J '49 p27 M/J '49 p27

Convict Labor, Continued	
Construction in Kings River Canyon, (Fresno Co.) with inmate labor, 1936.	M/J '49 p28
Erosion control with prison labor on Angeles Crest Hwy., Los Angeles Co., 1938.	M/J '49 p29
Typical hard rock excavation on Feather River Canyon Hwy. in Plumas Co., 1936.	M/J '49 p30
Construction on Modoc Co. project, 1949 using free operators and inmate labor.	M/J '49 p31
Humboldt Co.; Honor Camp No. 42 established for work on Rt. 299.	N/D '61 p22
Inmates gathered at San Quentin Prison's mess hall for a New Year's show, 1939.	N/D '49 p27
Los Angeles Co.; Angels Crest Hwy., Honor Camp No. 37.	14/15 47 p2/
Cottages and schoolhouse for highway employees and their families.	N/D '56 p16
Before, and after heavy snowfall, indicating 12-ft. depth of snow.	N/D '49 p25
Free family quarters near Camp 37.	N/D '49 p25
Camp equipment shop.	N/D '49 p25
Removing snow from road through camp.	N/D '49 p25
Clearing snow to office entrance.	N/D '49 p25
Mariposa Co.; Prison road camp "E" on Merced River., Rt. 140, 1924.	M/A '49 p5
Modoc Co.; prison camp kitchen and mess hall of Camp 39 on US 395, late 1940s.	J/A '49 p25
Monterey Co.	0/11 15 p25
Camp 26 built in 1932 at Anderson Canyon, Rt. 1, overlooking the ocean.	J/A '49 p27
Prison road camp inmates from first half of twentieth century.	J/F '50 p25
San Diego Co.	0/1 00 p20
Prison Road Camp No. 38 on Rt. 163 [Rt. 77].	M/J '50 p41
Prison road camp in Moose Canyon ca. 1940s on Rt. 163 [US 395].	M/A '49 p6
Camp 40 barracks housing 24 men each; Interior of barracks.	J/A '49 p26
San Luis Obispo Co. tent camp established at Salmon Creek on Rt. 1, ca. 1928.	J/A '49 p28
,	. r
CULVERTS	
CULVERTS Alameda Co. I-580: Boehmer Hill-Castro Valley	
Alameda Co. I-580; Boehmer Hill-Castro Valley	I/A '57 n19+
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way.	J/A '57 p19+
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters.	J/A '57 p19
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert.	J/A '57 p19 J/A '57 p20
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.).	J/A '57 p19 J/A '57 p20 J/F '64 p6
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.).	J/A '57 p19 J/A '57 p20
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.). Arch culvert being built to carry waters of Irwin Cr. under four streets beneath	J/A '57 p19 J/A '57 p20 J/F '64 p6 M/J '64 p61
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.). Arch culvert being built to carry waters of Irwin Cr. under four streets beneath viaduct through San Rafael.	J/A '57 p19 J/A '57 p20 J/F '64 p6
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.). Arch culvert being built to carry waters of Irwin Cr. under four streets beneath viaduct through San Rafael. "Beaver-proofing" culverts	J/A '57 p19 J/A '57 p20 J/F '64 p6 M/J '64 p61 Jul '40 p8
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.). Arch culvert being built to carry waters of Irwin Cr. under four streets beneath viaduct through San Rafael. "Beaver-proofing" culverts Creosote bucket still on fence; Beaver-proof barrier around culvert.	J/A '57 p19 J/A '57 p20 J/F '64 p6 M/J '64 p61 Jul '40 p8 J/F '56 p44
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.). Arch culvert being built to carry waters of Irwin Cr. under four streets beneath viaduct through San Rafael. "Beaver-proofing" culverts Creosote bucket still on fence; Beaver-proof barrier around culvert. Box culvert; stages of installation on US 101 near Santa Maria.	J/A '57 p19 J/A '57 p20 J/F '64 p6 M/J '64 p61 Jul '40 p8
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.). Arch culvert being built to carry waters of Irwin Cr. under four streets beneath viaduct through San Rafael. "Beaver-proofing" culverts Creosote bucket still on fence; Beaver-proof barrier around culvert. Box culvert; stages of installation on US 101 near Santa Maria. Bridges replaced by culverts and fills	J/A '57 p19 J/A '57 p20 J/F '64 p6 M/J '64 p61 Jul '40 p8 J/F '56 p44 J/F '53 p52
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.). Arch culvert being built to carry waters of Irwin Cr. under four streets beneath viaduct through San Rafael. "Beaver-proofing" culverts Creosote bucket still on fence; Beaver-proof barrier around culvert. Box culvert; stages of installation on US 101 near Santa Maria. Bridges replaced by culverts and fills Bridge, and replacement of same by pipe and fill	J/A '57 p19 J/A '57 p20 J/F '64 p6 M/J '64 p61 Jul '40 p8 J/F '56 p44 J/F '53 p52 M/A '47 p24
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.). Arch culvert being built to carry waters of Irwin Cr. under four streets beneath viaduct through San Rafael. "Beaver-proofing" culverts Creosote bucket still on fence; Beaver-proof barrier around culvert. Box culvert; stages of installation on US 101 near Santa Maria. Bridges replaced by culverts and fills Bridge, and replacement of same by pipe and fill Cattlepass bridge before/after replacement by fill.	J/A '57 p19 J/A '57 p20 J/F '64 p6 M/J '64 p61 Jul '40 p8 J/F '56 p44 J/F '53 p52 M/A '47 p24 M/A '47 p25
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.). Arch culvert being built to carry waters of Irwin Cr. under four streets beneath viaduct through San Rafael. "Beaver-proofing" culverts Creosote bucket still on fence; Beaver-proof barrier around culvert. Box culvert; stages of installation on US 101 near Santa Maria. Bridges replaced by culverts and fills Bridge, and replacement of same by pipe and fill Cattlepass bridge before/after replacement by fill. Long trestle before, and after replacement by culvert.	J/A '57 p19 J/A '57 p20 J/F '64 p6 M/J '64 p61 Jul '40 p8 J/F '56 p44 J/F '53 p52 M/A '47 p24 M/A '47 p25 M/A '47 p26
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.). Arch culvert being built to carry waters of Irwin Cr. under four streets beneath viaduct through San Rafael. "Beaver-proofing" culverts Creosote bucket still on fence; Beaver-proof barrier around culvert. Box culvert; stages of installation on US 101 near Santa Maria. Bridges replaced by culverts and fills Bridge, and replacement of same by pipe and fill Cattlepass bridge before/after replacement by fill. Long trestle before, and after replacement by culvert. Short span trestle, and after replacement with concrete arch.	J/A '57 p19 J/A '57 p20 J/F '64 p6 M/J '64 p61 Jul '40 p8 J/F '56 p44 J/F '53 p52 M/A '47 p24 M/A '47 p25 M/A '47 p26 M/A '47 p26
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.). Arch culvert being built to carry waters of Irwin Cr. under four streets beneath viaduct through San Rafael. "Beaver-proofing" culverts Creosote bucket still on fence; Beaver-proof barrier around culvert. Box culvert; stages of installation on US 101 near Santa Maria. Bridges replaced by culverts and fills Bridge, and replacement of same by pipe and fill Cattlepass bridge before/after replacement by fill. Long trestle before, and after replacement by culvert. Short span trestle, and after replacement with concrete arch. Sidehill viaduct, same spot after fill replacement.	J/A '57 p19 J/A '57 p20 J/F '64 p6 M/J '64 p61 Jul '40 p8 J/F '56 p44 J/F '53 p52 M/A '47 p24 M/A '47 p25 M/A '47 p26 M/A '47 p26 M/A '47 p24
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.). Arch culvert being built to carry waters of Irwin Cr. under four streets beneath viaduct through San Rafael. "Beaver-proofing" culverts Creosote bucket still on fence; Beaver-proof barrier around culvert. Box culvert; stages of installation on US 101 near Santa Maria. Bridges replaced by culverts and fills Bridge, and replacement of same by pipe and fill Cattlepass bridge before/after replacement by fill. Long trestle before, and after replacement by culvert. Short span trestle, and after replacement with concrete arch. Sidehill viaduct, same spot after fill replacement. Trestle before and after replacement with culvert.	J/A '57 p19 J/A '57 p20 J/F '64 p6 M/J '64 p61 Jul '40 p8 J/F '56 p44 J/F '53 p52 M/A '47 p24 M/A '47 p25 M/A '47 p26 M/A '47 p26 M/A '47 p24 M/A '47 p24 M/A '47 p27
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.). Arch culvert being built to carry waters of Irwin Cr. under four streets beneath viaduct through San Rafael. "Beaver-proofing" culverts Creosote bucket still on fence; Beaver-proof barrier around culvert. Box culvert; stages of installation on US 101 near Santa Maria. Bridges replaced by culverts and fills Bridge, and replacement of same by pipe and fill Cattlepass bridge before/after replacement by fill. Long trestle before, and after replacement by culvert. Short span trestle, and after replacement with concrete arch. Sidehill viaduct, same spot after fill replacement. Trestle before and after replacement with culvert. Check dam along Santa Clara Rvr. near Tick Canyon Wash freeway bridge.	J/A '57 p19 J/A '57 p20 J/F '64 p6 M/J '64 p61 Jul '40 p8 J/F '56 p44 J/F '53 p52 M/A '47 p24 M/A '47 p25 M/A '47 p26 M/A '47 p26 M/A '47 p24 M/A '47 p27 J/F '64 p8
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.). Arch culvert being built to carry waters of Irwin Cr. under four streets beneath viaduct through San Rafael. "Beaver-proofing" culverts Creosote bucket still on fence; Beaver-proof barrier around culvert. Box culvert; stages of installation on US 101 near Santa Maria. Bridges replaced by culverts and fills Bridge, and replacement of same by pipe and fill Cattlepass bridge before/after replacement by fill. Long trestle before, and after replacement by culvert. Short span trestle, and after replacement with concrete arch. Sidehill viaduct, same spot after fill replacement. Trestle before and after replacement with culvert. Check dam along Santa Clara Rvr. near Tick Canyon Wash freeway bridge. Concrete drainage culvert under construction in Puerco Canyon (Rt. 1, L.A. Co.).	J/A '57 p19 J/A '57 p20 J/F '64 p6 M/J '64 p61 Jul '40 p8 J/F '56 p44 J/F '53 p52 M/A '47 p24 M/A '47 p25 M/A '47 p26 M/A '47 p26 M/A '47 p27 J/F '64 p8 M/A '47 p18
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.). Arch culvert being built to carry waters of Irwin Cr. under four streets beneath viaduct through San Rafael. "Beaver-proofing" culverts Creosote bucket still on fence; Beaver-proof barrier around culvert. Box culvert; stages of installation on US 101 near Santa Maria. Bridges replaced by culverts and fills Bridge, and replacement of same by pipe and fill Cattlepass bridge before/after replacement by fill. Long trestle before, and after replacement by culvert. Short span trestle, and after replacement with concrete arch. Sidehill viaduct, same spot after fill replacement. Trestle before and after replacement with culvert. Check dam along Santa Clara Rvr. near Tick Canyon Wash freeway bridge. Concrete drainage culvert under construction in Puerco Canyon (Rt. 1, L.A. Co.). Corrugated metal culvert across Lee Vining Cr. at entrance to Yosemite Nat. Park.	J/A '57 p19 J/A '57 p20 J/F '64 p6 M/J '64 p61 Jul '40 p8 J/F '56 p44 J/F '53 p52 M/A '47 p24 M/A '47 p25 M/A '47 p26 M/A '47 p26 M/A '47 p24 M/A '47 p27 J/F '64 p8
Alameda Co. I-580; Boehmer Hill-Castro Valley 84-in. pipe installation showing relative position to existing traveled way. Completed aero energy dissipaters. Riprap section of channel approaching 20-ft. arch culvert. Arch culvert under construction on Antelope Valley Fwy. (Los Angeles Co.). Arch culvert under embankment between Wicks Corner and Jarbo Gap (Butte Co.). Arch culvert being built to carry waters of Irwin Cr. under four streets beneath viaduct through San Rafael. "Beaver-proofing" culverts Creosote bucket still on fence; Beaver-proof barrier around culvert. Box culvert; stages of installation on US 101 near Santa Maria. Bridges replaced by culverts and fills Bridge, and replacement of same by pipe and fill Cattlepass bridge before/after replacement by fill. Long trestle before, and after replacement by culvert. Short span trestle, and after replacement with concrete arch. Sidehill viaduct, same spot after fill replacement. Trestle before and after replacement with culvert. Check dam along Santa Clara Rvr. near Tick Canyon Wash freeway bridge. Concrete drainage culvert under construction in Puerco Canyon (Rt. 1, L.A. Co.).	J/A '57 p19 J/A '57 p20 J/F '64 p6 M/J '64 p61 Jul '40 p8 J/F '56 p44 J/F '53 p52 M/A '47 p24 M/A '47 p25 M/A '47 p26 M/A '47 p26 M/A '47 p27 J/F '64 p8 M/A '47 p18

CULVERTS, Continued

CULVER15, Continued	
Debris Deflectors	
Steel rail debris deflector.	O '42 p6
Wire and pipe debris deflector.	O '42 p6
Wooden pile debris deflector.	O '42 p6
Metal debris riser.	O '42 p6
Typical small culvert failure due to detritus and light floating debris at entrance.	O '42 p6
Types of steel rail debris racks.	O '42 p7
Pipe debris rack.	O '42 p7
Debris spillway entrance on rock slope.	O '42 p8
Lined debris spillway entrance.	O '42 p8
Debris basin spillway typical in mountainous terrain.	O '42 p8
Debris crib of reinforced concrete.	O '42 p9
Timber debris crib.	O '42 p9
Debris crib of hewn timber.	O '42 p9
Desert culvert construction on US 95, San Bernadino Co.	F '42 p11
Double-arch culvert of railway at Las Flores Cr.	M/J '43 p9
Earth-loading factors affecting field installations of culverts	
Culvert installation rock cushion and bedding in lieu of high compaction backfill.	M/A '43 p9
Rock cushion on yielding subgrade for reinforced concrete arch culvert.	M/A '43 p9
Crusher run backfill placed and jetted by contractor in lieu of compaction backfill.	M/A '43 p9
Flexible culvert on embankment subgrade covered with earth.	M/A '43 p10
Rigid culvert on embankment sub- grade covered with earth.	M/A '43 p10
Masonry arch culvert under construction.	M/A '43 p11
Same culvert loaded by end-dumped material on one side.	M/A '43 p11
Entrances and headwalls of culverts	
Concrete pipe with rounded lip entrance.	D '42 p4
Drop entrance with warped wings and radial bucket outlet on Rt. 126 [Rt. 79],	
Los Angeles Co.	Jan '47 p12
Rounded lip entrance to concrete box culvert.	D '42 p5
Forms for throated entrance to concrete arch culvert.	D '42 p6
Warped wing headwall with rounded-lip crown at entrance to box culvert.	D '42 p6
Stepped "U" type End- wall, most inefficient type.	D '42 p7
Open lined training channel to concrete box culvert.	D '42 p7
Multiplate culvert endwall without miter or skew cut.	D '42 p8
Entrance to multiplated culvert.	D '42 p8
Flare-siphon culvert construction at Vallejo Creek.	F '43 p7
Flat arch culvert under a low fill. at Myers Creek, Imperial Co.	M/J '43 p9
High arch culvert replacing bridge at Seaman's Gulch on Rt. 299, Shasta Co.	Jan '47 p12
Hydraulic Energy Dissipaters of different lengths being tested.	J/A '61 p67+
Kern Co.; dip in Rt. 14 [US 6] through Red Rock Canyon replaced by fill and culvert.	May '41 p6
Life expectancy of culverts, testing for	
Bituminous-coated corrugated metal pipe being inspected.	J/F '61 p44
Comparison of two 30-year old corrugated-metal pipe culverts.	J/F '61 p43
Machine measuring the minimum electrical resistivity of soil.	J/F '61 p43
Measuring electrical resistivity of a soil in the field.	J/F '61 p43
Measuring pH of a stream, used to estimate perforation time of metal culverts.	J/F '61 p46
Location and slope of culverts in California	
Bottom location-reinforced concrete arch on curved alignment, uniform gradient.	N '42 p6
Bottom location-reinforced concrete arch on straight alignment, broke gradient.	N '42 p6
Modified bottom location-corrugated metal pipe, with entrance in bottom of ravine.	N '42 p6
Invert steps herring-bone roughened to create turbulence, reduce outlet velocity.	N '42 p7
Fluted sidewalks to further reduce velocity (McNamee Creek, Mendocino Co.).	N '42 p7

CULVERTS, Continued	
Log culvert on Lake Tahoe Wagon Rd. (US 50).	S/O '50 p88
Merced Co., Rt. 152; arch drains	_
Arch structure required for "Big Fill."	J/A '65 p4
Arch before construction of "Big Fill."	J/A '65 p4
Bin wall constructed to contain fill slope in steep canyon.	J/A '65 p4
Multi-plate culvert used in construction of Carmel-San Simeon Hwy. (Rt. 1).	Jul '37 p4
Nevada Co.; installing culvert as part of Colfax Ave. widening project, Grass Valley.	J/A '60 p50
Orange Co.; Rt. 73, culvert being built, Santa Ana.	Jun '41 p23
Outlets and endwalls of culverts	
Projecting culvert with temporary extension.	Jan '43 p8
Soft bed rock scoured rapidly by accelerated boulder-laden flow.	Jan '43 p8
Nojoqui Creek culvert in 1940, after discharge of 640 second-feet.	Jan '43 p9
Nojoqui Creek culvert after 2,000 second foot flood, Dec. 1941.	Jan '43 p9
Construction of warped end wall.	Jan '43 p9
Bucket outlet deflects Salt Cr. through angle of 70 degrees.	Jan '43 p10
Close-up of Salt Cr. outlet shooting at 22 ft per second.	Jan '43 p10
Drop inside arch culvert on Rattlesnake Creek	Jan '43 p10
Warped endwall which proved too short.	Jan '43 p11
Plank culvert typical of standards on early roads assumed as state routes, 1895-1912.	S/O '50 p88
Quintuple culvert of rubble masonry and metal arches, Moose Canyon, San Diego Co.	M/J '43 p10
R.C. arch culvert 462-ft. long under 70,000 cu. yard embankment.	N/D '48 p43
Reinforced concrete arch near Agua Dulce Canyon Rd. (Los Angeles Co.).	J/F '64 p6
Reinforced concrete box culvert under US 101 (Teclote Cr., Santa Barbara Co.).	O '41 p10
Riprap wall separating left bank of Santa Clara Rvr. from Antelope Valley Fwy.	J/F '64 p8
San Bernardino Co.	•
Chimney type inlet to corrugated metal pipe culvert on Cajon Pass Hwy. (I-15).	Jul '39 p18
Placing of concrete pipe; construction of box culvert. (I-10, Redlands)	D '40 p9
Reinforced concrete box culvert being constructed on Cajon Pass Hwy. (I-15).	Jul '39 p18
San Diego Co.	-
Culvert drainage construction on project north of Oceanside.	O '37 p9
Concrete arch culvert (I-8, Mt. Springs Grade).	Apr '41 p21
Santa Clara Co.	
Heavy reinforced concrete arch culvert being built under an old arch bridge.	
Both will be buried in the fill at that point on new route (Rt. 17).	O '38 p6
Rt. 152; steel and concrete culverts involved in Pacheco Pass realignment.	F '39 p12
Tehama Co.; ford on old Rt. 36, and culvert which replaced ford.	N/D '57 p53
Triple concrete box culvert in Long Valley Creek, Rt. 36 [Rt. 29], Lassen Co.	N/D '46 p10
Three pipe battery culvert; Triple box culvert. (Rt. 14 [US 6], Kern Co.).	May '41 p6
DAMO O CANALO	
DAMS & CANALS	
Central Valley Project	D (20 4
Central Valley Project Committee, group photo.	D '39 p4
Gov. Olson and official party on inspection tour of Shasta Dam and other	T (40 14
highway and bridge units of the Central Valley Project.	Jun '40 p14
Panoramic perspective of Central Valley Project (drawing).	Mar '39 p4
Typical area of irrigated orchards & vineyards in 1923, Tulare Co., flourishing	M (27 2
before water supplies were exhausted.	Mar '37 p3
Same area in 1936 with dead trees and vines removed.	Mar '37 p3

DAMS & CANALS, Continued

DAMS & CANALS, Continued	
Contra Costa Conduit	
Official group at Contra Costa Conduit ground-breaking.	D '37 p17
Steam shovel digging up first load of earth and dumps it, signalizing start of	
work on project.	D '37 p17
Under construction, showing siphon under county road.	May '38 p16
Workmen installing steel reinforced bars on sides and bottom of canal.	May '39 p5
Concrete lining machine and finishing racks used on canal.	May '39 p5
Completed section of canal near Antioch.	May '39 p5
First water being pumped through canal for use of Pittsburg City.	O '40 p5
Completed canal, with lift pumping plant in background.	O '40 p5
Coyote Dam under construction at Coyote Valley near Ukiah.	M/J '57 p3, BC
Joint Legislative Interim Committee on Water Problems, group photo.	Jan '42 p8
Friant Dam	
Diagram sketch of dam on photo of dam site showing span across San Joaquin	
River, location of spillway and canal outlets.	O '39 p2+
Friant Camp: headquarters office and dormitory, and duplex cottages on 2nd Ave.	O '39 p5
Dam site looking across San Joaquin River toward right abutment.	D '39 p2
Frank W. Clark, H.L. Ickes, and Gov. Olson at Friant Dam ground breaking.	D '39 p3
Celebration commemorating first bucket of concrete at Friant Dam.	Aug '40 p4
Progress of concrete pouring made by trestle and crane system.	S '41 p13
Joint Legislative Interim Committee at Friant Dam.	Jun '42 p15
Completed dam near San Joaquin River, completed except for control gates.	F '43 p11
Kennett Dam	
Calyx core drilling machine used to explore rock foundations at dam site.	Mar '37 p4
Cores taken out by calyx drill typifying the solid rock foundation upon	
which Kennett Dam will be placed.	Mar '37 p5
Lexington Dam chute extension	
Final grading and drain excavation looking downstream.	M/A '55 p34
Looking down on flit-bucket terminus of original chute.	M/A '55 p34
Partially completed floor of chute extension.	M/A '55 p34
Completed spillway extension.	M/A '55 p36
Madera Canal under construction.	Jul '41 p12
Monticello dam site at "Devil's Gate."	M/A '55 p17
Nicasio Dam and rerouted section of Nicasio Rd., aerial view.	J/A '61 p51
Oroville Dam site and artist's conception of finished project.	J/A '53 p33
Gov. Knight delivering address at Oroville Dam ground-breaking.	M/J '57 p29
Rector Canyon Dam (Napa Co.); heavy construction equipment at work at site.	M/J '46 p20
Official party at celebration for Rector Canyon Dam.	M/J '46 p21
San Gabriel Dam; Gov. Merriam at dedication.	Aug '37 p9
Stepped face of dam and magnitude of this flood control project.	Aug '37 p21
San Francisco Bay Barrier	
Board of consultants to investigate potential barrier.	J/A '54 p16
Gov. Knight, Frank Durkee, State Engineer A.D. Edmonston, Raymond A Hill,	_,, ,_, ,_
and noted Dutch engineer C. Biedmond, hired to participate in barrier study.	J/A '54 p17
San Vicente Dam under construction; completed dam.	J/F '44 p14
Shasta Dam	
Camp near dam site in which employees of Bureau of Reclamation will live.	Jun '38 p2+
Official group at Shasta Dam dedication ceremonies.	N '38 p9
Shasta Dam site. N '38 p8;	Jun '38 p1
State Water Dept. officials at Shasta Dam site.	N '38 p11
Official sketch of Shasta Dam unit of Central Valley Project.	Mar '39 p3
Excavating diversion channel at dam site for Sacramento River. Mar '39 p5;	May '39 p3

DAMS & CANALS, Continued

DAMS & CANALS, Continued	
Dump trucks placing excavated material in intermediate zone of upstream	
embankment section.	May '39 p26, C
Bypass tunnel through which main line railroad traffic will be rerouted.	May 39 p33
Temporary by-pass tunnel through west abutment of Shasta Dam.	Jul '39 p2
Railroad bridge across Sacramento River near Redding under construction.	Jul '39 p3
One of twelve tunnels under construction.	Jul '39 p3
Completed section of grading north of Redding.	Jul '39 p3
Conveyor belt system.	F '40 p3
Dam site ready for pouring, showing power house site and flume excavations. First bucket of concrete at Shasta Dam.	Aug '40 p3 Aug '40 p4
"Twelve-toed Petes" are tail towers supporting half-mile cables from the head	riag to p
tower at Shasta Dam.	Aug '40 p5
Construction of huge blocks of concrete on site of East abutment of dam.	O '40 p2
Progress of concrete pouring made by cable system.	S '41 p12
Shasta Lake, showing flood control valves.	J/F '46 p6, C
Shasta Dam and Reservoir, Mt. Shasta, aerial view [US Navy photo].	N/D '49 p61
State Water Resources Board, 1945 with Gov. Warren.	N/D '45 p4
Ward Creek earth fill dam site in Hayward, topographical aerial photo.	J/F '62 p64
DIVISION OF HIGHWAYS	
Accounting Dept. personnel gathered for briefing and training.	N/D '66 p32
Brand adopted by first CHC for use on livestock owned by highway dept.	J/A '52 p47
Emblem used on motor vehicles owned by Division of Highways, 1952.	J/A '52 p47
Fiscal management development course in session.	N/D '65 p68
Headquarters Correspondence Practices Committee members.	J/A '64 p42
Maintenance DeptSee MAINTENANCE	•
Materials and Research Dept.	
Administration and Services section	
Activities of.	M/J '57 p15
Administrative Assistant; Mail Desk.	M/A '58 p40
Photographer.	M/A '58 p41
Draftsman at work.	M/A '58 p42
Concrete beams used for endurance testing.	N/D '62 p31
Dist. 4 materials laboratory underneath Bayshore Fwy.	N/D '64 p28
Instruments and equipment used by Materials and Research Dept.	M/J '57 p17+
Fluorescent lamp being installed for testing in integrating photosphere.	N/D '62 p29
Foundation section crews ready to correct a serious slipout on a major highway.	M/J '57 p14
Materials laboratory building adjacent to Santa Monica Fwy., Los Angeles.	M/J '65 p43
Materials and Research Conference, design and materials engineers at.	J/A '63 i.cvr.
Materials and Research engineers show visiting German delegation a box beam	
median barrier on field test location.	N/D '66 p8
Materials and Research Laboratory library.	S/O '57 p19
Materials and Research Lab., Sacramento	
Original facilities (1912-1921) located on State Fair Grounds.	S/O '50 p159
Lab. Building constructed at 34th and Serra Way, Sacramento (1921).	S/O '50 p159
Lab. after 1933 enlargements	S/O '50 p159
Testing and Research Lab ca 1950.	S/O '50 p161
Representatives of the Materials and Research Dept. and engineers from the	· ·
Bridge Dept. at the plant of a steel fabricator.	M/J '57 p14
Standardization of weights and balances.	M/A '58 p43

DIVISION OF HIGHWAYS, Continued Structural Materials section, testing conducted by Corrugated metal and reinforced concrete pipe undergoing inspection. N/D '57 p35 Inspection of structural steel fabrication. N/D '57 p36 Stress and strain measurements being made of a wire strand. N/D '57 p36 Close-up of strand after being loader to failure in testing machine. N/D '57 p36 Metallurgist studying the microstructure of a metal specimen. N/D '57 p37 N/D '57 p37 Interior of a mobile radiographic truck with portable X-ray equipment. N/D '57 p37 Engineer examining radiographs of welded joints. N/D '57 p38 Experimental model of electronic compaction control equipment. Experimental study concerning rate of corrosion. N/D '57 p38 Tensile testing of fabric material in an electrohydraulic tensile tester. N/D '57 p39 Testing engineer and instrument maker making final adjustments on recorder. N/D '57 p39 "Undisturbed" tube samples of soil being sealed and labeled for shipment to Headquarters Materials and Research Dept. Lab. N/D '62 p33 Visitor from Trinidad being shown a California test method. M/A '58 p44 X-ray Diffraction and Spectroscopy Unit at work. N/D '62 p29 N/D '64 p68 Seminar for district accounting officers in session. Service and Supply [Stores] Department Los Angeles warehouse Under construction, showing rail facilities and portion of hard-standings. J/F '49 p13 J/F '49 p13 Portion of warehouse stock of survey stakes at Los Angeles. J/F '49 p15 Sacramento warehouse, interior view. Loading dock and rail unloading facilities. J/F '49 p13 S/O '49 p44+ Stockpiling operations. DOCUMENTS AND RECORDS Blueprinting Feeding two continuous blueprint machines in Hdqts. Reproduction Dept. M/A '50 p61 Operator feeding small paper tracings into continuous ammonia process printer. M/A '50 p62 M/J '64 p18 Central index to Dist. 8's central map files, and map files themselves. M/J '64 p19 General Files personnel at work, Dist 7. M/J '58 p1 Headquarters Records Center, a low-cost storage of semiactive records. Portion of records marked for disposal as a result of applied schedules. M/J '58 p4 M/J '58 p5 General File Office, showing space formerly occupied by filing cabinets. Forklift developed to speed up filing and removal of boxes of records. N/D '65 p37 Historic documents Facsimile of first Surveyor General certificate. J/A '46 p3 Cover of resident engineer's field notebook for Contract No. 4 in Yuba City, 1912 on file at Dist. 3 office, Marysville. J/A '52 p31 Page from old minute book. J/A '46 p5 Records being photographed; Close up of photographed record. M/A '49 p54 Reproduction of plans Reproduction machine operator demonstrating transferring of plan image to an offset paper master. J/A '62 p45 Plan on copyboard predatory to making a photocopy. J/A '62 p46 Checking prints runoff on duplicating machines from processed offset paper masters. J/A '62 p46 Collating copies of plans. J/A '62 p47 Completed set of plans being punched on multiple-head drilling machine. J/A '62 p47 Stacks of plans ready to be shipped to districts. J/A '62 p48

EDUCATION Equipment Dept. training school trailer mobile unit, interior and exterior. M/J '53 p6 Examples of training filmstrip photos and narration. S/O '56 p34+ Inspection procedure training course in session. (concrete). S/O '64 p61 Test core and aggregate sample exhibit used in conducting small group lectures. S/O '64 p62 "Training the trainers" session in progress. S/O '64 p63 S/O '64 p64 Inspection procedure instructors between sessions. Maintenance classes held in classroom trailer; Class receiving outdoor instruction. S/O '54 p39 Materials and Research Engineer Thomas E. Stanton with visiting students. S/O '45 p21 Photogrammetry class at work on individual highway locations. M/J '51 p45 Instructor William Pryor demonstrating use of stereoscope. M/J '51 p45 Rhodesian road commissioner J.H. Durr, student of California methods. S/O '56 p50 Turkish engineer Fethi Komurenoglu student of California roadbuilding. S/O '51 p63 Apr '42 p15 Welding engineering class, state employees watching demonstration at. ENVIRONMENTAL ISSUES Smog damage Pinto bean leaf damage by smog documented by UC Air Pollution Research Center, Riverside. S/O '66 p12 Santa Ana-Hollywood freeways in L.A. on a clear day, showing number of vehicles traveling freeways. S/O '66 p13 Chrysler Cleaner Air Package engine. S/O '66 p15 Special committee on vehicle pollution control inspecting emission testing equipment at Detroit auto plant. S/O '66 p16 Gov. Edmund Brown signing key piece of auto smog legislation. S/O '66 p17 **EQUIPMENT** Asphalt heating kettles. D '42 p14 Asphalt raker, traveling type. Jan '39 p20 Asphalt spreaders Horse-drawn equipment spreading asphaltic oil surface, 1913. S '37 p22; S/O '50 p165 Emulsified power asphalt kettle, 1937. S '37 p22; S/O '50 p165 S/O '50 p165 1,850-gal. capacity oil distributor ca 1950. S/O '50 p165 Asphalt kettle ca. 1950. J/A '62 p49 **Atmometer** apparatus for measuring evaporation during construction operations. Recording unit with porcelain atmometers ready for transportation. J/A '62 p50 Filter paper type atmometer. J/A '62 p51 Paper atmometer, non-recording type. J/A '62 p51 Recording unit equipped with paper atmometer. J/A '62 p51 Belt loaders "Trough" type belt loader. D '42 p13 "Trough" type belt loader attachment for motor grader. D '42 p15 Travel type belt loader; Bucket loader; Tractor front-end loaders. D '42 p15 Boom attachment designed by George Sloan. J/A '49 p63 **Bridge-related equipment** California skid tester device. N/D '65 p61 Equipment used by mobile bridge painting units. May '42 p18+ Pile testing rig for conducting load tests developed by Bridge Dept. J/A '50 p47 J/A '50 p47+ Pipe drilling rig in operation. Portable floating drill barge developed by Division of Highways. N/D '65 p63

J/F '46 p5

Portable steam outfit for removing "road haze' from bridges.

Bumpograph (measures pavement roughness), as devised by E.L. Seitz. Machine folded for transportation. Mr. Seitz operating the machine and carrying straight edge. Close-ups of marking device. Close-ups of marking device. Curb forms, steel-type, in sections with interlocking devices and braces. Deflectometer Benkelman Beam used under a loaded truck wheel. Traveling Deflectometer, P43 Sensing probe being straddled by dual tires. S/O '60 p42 Chart recorder constructed for Deflectometer. S/O '60 p42 Chart recorder on the pread to be a stackment. Mr. '43 p25 Dozer spreader with spreader box blade attachment. Jan '39 p23 Appearance of highway after use of drag finisher. Operation of mule-drawn float which reduces cost of highway finishing. Appearance of highway after use of drag finisher. Jump trucks, types of. Emergency equipment; "merey sled" rescue-aid and accessories May '41 p21 Two views showing sturdy construction of sled. May '41 p21 Two views showing sturdy construction of sled. MA '55 p26 California borizontal drill. MA '55 p26 California borizontal drill in use. Horizontal drill in use. Hydrauger drill in operation. Jif '46 p4 Horizontal drill in use. Hydrauger drill in operation. Jif '88 p21 M/A '48 p7 Lever-type loading device with consolidometers in place. McCarthy rock-boring machine. Retary drill, Rotary jet, Driven mandrel. Stellement measuring device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Livertical drillin geuipment used on slide by Materials and Research Dept. Jif '58 p21 Mr. '58 p21 Jif '58 p21 Jif '58 p21 Jif '58 p24 Ver	EQUIPMENT , Continued	
Machine folded for transportation. Mr. Seitz operating the machine and carrying straight edge. Close-ups of marking device. Fr. 37 p27 Curb forms, steel-type, in sections with interlocking devices and braces. Deflectometer Benkelman Beam used under a loaded truck wheel. Traveling Deflectometer; P43 Sensing probe being straddled by dual tires. Sion 60 p42 Traveling Deflectometer; P43 Sensing probe being straddled by dual tires. Sion 60 p42 Chart recorder constructed for Deflectometer. Dozer spreader with spreader box blade attachment. Mr. 43 p5 Drag finisher, new type of in operation. Operation of mule-drawn float which reduces cost of highway finishing. Appearance of highway after use of drag finisher. Dunly trucks, types of. Emergency equipment, "mercy sled" rescue-aid and accessories May 34 p21 Two views showing sturdy construction of sled. Mr. 43 p27 Emergency equipment; "mercy sled" rescue-aid and accessories Mr. 43 p27 Entergency equipment; "mercy sled" rescue-aid and accessories Mr. 43 p27 Entergency equipment; "mercy sled" rescue-aid and accessories Mr. 43 p27 Entergency equipment; "mercy sled" rescue-aid and accessories Mr. 43 p27 Entergency equipment; "mercy sled" rescue-aid and accessories Mr. 43 p27 Entergency equipment; "mercy sled" rescue-aid and accessories Mr. 43 p27 Entergency equipment; "mercy sled" rescue-aid and accessories Mr. 43 p27 Entergency equipment; "mercy sled" rescue-aid and accessories Mr. 43 p27 Entergency equipment; "mercy sled" rescue-aid and accessories Mr. 43 p27 Entergency equipment; "mercy sled" rescue-aid and accessories Mr. 43 p27 Entergency equipment; "mercy sled" rescue-aid and accessories Mr. 43 p27 Entergency equipment study construction of sled. Mr. 55 p28 Mr. 43 p27 Entergency equipment study construction of sled. Mr. 55 p28 Mr. 44 p21 Erosion-Related Equipment Mr. 55 p28 Mr. 45 p28 Mr. 45 p28 Mr. 45 p29 Mr.		F '37 p27
Mr. Seitz operating the machine and carrying straight edge. Close-ups of marking device. Close-ups of marking device. Curb forms, steel-type, in sections with interlocking devices and braces. Deflectometer Benkelman Beam used under a loaded truck wheel. Traveling Deflectometer; P43 Sensing probe being straddled by dual tires. S/O '60 p42 Chart recorder constructed for Deflectometer. Dozer spreader with spreader box blade attachment. M/A '43 p5 Drag finisher, new type of in operation. Operation of mule-drawn float which reduces cost of highway finishing. Appearance of highway after use of drag finisher. Dump trucks, types of. M/J '43 p27 Dump trucks, types of. M/J '43 p27 Theory operations. M/J '43 p27 Two views showing sturdy construction of sled. M/J '43 p27 Two views showing sturdy construction of sled. M/J '43 p27 Two views showing sturdy construction of sled. M/J '43 p27 Two views showing sturdy construction of sled. M/J '55 p26 California horizontal drill. M/J '55 p26 California sampler being disassembled to remove soil samples. California sampler being disassembled to remove soil samples. J/F '58 p19 Culvert cleaning spoon, tractor powered. Horizontal drill in use. Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. M/J '48 p16 Large drill rig in position for making deep borings in a landslide area. J/F '58 p12 Large drill rig in position for making deep borings in a landslide area. J/F '58 p21 Rotary drill, Rotary jet; Driven mandrel. Shaping and compacting device with consolidometers in place. M/A '48 p7 Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Fes p21 N/D '48 p16 Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. V/F '58 p21 J/F '58 p24		
Close-ups of marking device. Curb forms, steel-type, in sections with interlocking devices and braces. Deflectometer Benkelman Beam used under a loaded truck wheel. Traveling Deflectometer; P43 Sensing probe being straddled by dual tires. S/O '60 p42 Chart recorder constructed for Deflectometer. Dozer spreader with spreader box blade attachment. Dozer spreader with spreader box blade attachment. Dozer spreader with spreader box blade attachment. Jan '39 p23 Drag finisher, new type of in operation. Operation of mule-drawn float which reduces cost of highway finishing. Appearance of highway after use of drag finisher. Jan '39 p23 Appearance of highway after use of drag finisher. Dump trucks, types of. Emergency equipment; "mercy sled" rescue-aid and accessories May '41 p21 Two views showing sturdy construction of sled. May '41 p21 Erosion-Related Equipment Bits and couplings for hydrauger drilling equipment. California horizontal drill. California horizontal drill. California properation. JIF '58 p28 Hydrauger drill in operation. JIF '58 p28 Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Large drill rig in position for making deep borings in a landslide area. Lever-type loading device with consolidometers in place. McCarthy rock-boring machine. McCarthy rock-boring		
Curb forms, steel-type, in sections with interlocking devices and braces. Deflectometer Benkelman Beam used under a loaded truck wheel. Traveling Deflectometer; P43 Sensing probe being straddled by dual tires. S/O '60 p42 Chart recorder constructed for Deflectometer. Oberation of mule-drawn float which reduces cost of highway finishing. Appearance of highway after use of drag finisher. Operation of mule-drawn float which reduces cost of highway finishing. Appearance of highway after use of drag finisher. Drill fig auger, cleaning operations. Drill fig auger, cleaning operations. J/A '56 p47 Dump trucks, types of. Mury 43 p23 Femergency equipment; "mercy sled" rescue-aid and accessories May '41 p21 Two views showing sturdy construction of sled. May '41 p21 Bits and couplings for hydrauger drilling equipment. Bits and couplings for hydrauger drilling equipment. All '55 p26 California sampler being disassembled to remove soil samples. Culvert cleaning spoon, tractor powered. J/F '58 p19 Culvert cleaning spoon, tractor powered. J/F '58 p22 Hydrauger drill in operation. J/F '58 p22 Hydrauger drill fig in position for making deep borings in a landslide area. Lever-type loading device with consolidometers in place. McCarthy rock-boring machine. McA '55 p28 McCarthy rock-boring machine. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. N/D '48 p16 Spring-loaded consolidometers used to obtain test data for estimating settlement. Traixial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Fire to Model 4 Geodimeter. O'38 p16 Geodimeter nine prism reflecting unit. Panel view of		
Deflectometer Benkelman Beam used under a loaded truck wheel. Traveling Deflectometer; P43 Sensing probe being straddled by dual tires. S/O '60 p42 Chart recorder constructed for Deflectometer. M/A '43 p5 Dozer spreader with spreader box blade attachment. Jan '39 p23 Operation of mule-drawn float which reduces cost of highway finishing. Appearance of highway after use of drag finisher. Jan '39 p23 Appearance of highway after use of drag finisher. Jan '39 p23 Drill rig auger, cleaning operations. J/A '56 p47 Dump trucks, types of. Emergency equipment; "mercy sled" rescue-aid and accessories M/J '41 p21 Two views showing sturdy construction of sled. M/A '43 p25 Erosion-Related Equipment Bits and couplings for hydrauger drilling equipment. M/A '55 p28 California horizontal drill. All of the discount of the discount of sled. M/A '55 p28 California sampler being disassembled to remove soil samples. J/F '58 p21 Culvert cleaming spoon, tractor powered. Horizontal drill in use. Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. M/A '48 p7 Large drill rig in position for making deep borings in a landslide area. J/F '58 p17 Lever-type loading device with consolidometers in place. M/A '55 p28 McCarthy rock-boring machine. M/A '55 p27 Rotary drill; Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. J/F '58 p21 Vertical drilling equipment used on slide by Materials and Research Dept. J/F '58 p21 Vertical drilling equipment used on slide by Materials and Research Dept. J/F '58 p25 Float finisher, new motorized mechanical type. O '38 p16 Geodimeter nine prism reflecting unit. J/F '52 p59 Float finisher, new motorized mechanical type. Conducting Geodimeter course. Graders Attachment to finis		
Traveling Deflectometer, P43 Sensing probe being straddled by dual tires. S/O '60 p42 Chart recorder constructed for Deflectometer. Dozer spreader with spreader box blade attachment. Drag finisher, new type of in operation. Operation of mule-drawn float which reduces cost of highway finishing. Appearance of highway after use of drag finisher. Jan '39 p23 Appearance of highway after use of drag finisher. Drill rig auger, cleaning operations. My '43 p27 Emergency equipment; "mercy sled" rescue-aid and accessories May '41 p21 Two views showing sturdy construction of sled. Erosion-Related Equipment Bits and couplings for hydrauger drilling equipment. California horizontal drill. California sampler being disassembled to remove soil samples. California sampler being disassembled to remove soil samples. California horizontal drill in use. Hydrauger drill in operation. Jiff '58 p19 Lever-type loading device with consolidometers in place. Rotary drill, fotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneat		1
Chart recorder constructed for Deflectometer. Chart recorder constructed for Deflectometer. M/A '43 p5 Drag finisher, new type of in operation. Operation of mule-drawn float which reduces cost of highway finishing. Appearance of highway after use of drag finisher. Jan '39 p23 Appearance of highway after use of drag finisher. Jan '39 p23 Drill rig auger, cleaning operations. Jin' 55 p27 Dump trucks, types of. Emergency equipment; "mercy sled" rescue-aid and accessories May '41 p21 Two views showing sturdy construction of sled. Erosion-Related Equipment Bits and couplings for hydrauger drilling equipment. California horizontal drill. California sampler being disassembled to remove soil samples. California sampler being disassembled to remove soil samples. Little damandrel, double wall type; Jetted mandrel, closed-end type. Hydrauger drill in use. Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Large drill rig in position for making deep borings in a landslide area. Jif' 58 p23 McCarthy rock-boring machine. Rotary drill, Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device with provise and provise and pr	Benkelman Beam used under a loaded truck wheel.	S/O '60 p42
Chart recorder constructed for Deflectometer. Dozer spreader with spreader box blade attachment. M/A '43 p5 Drag finisher, new type of in operation. Operation of mule-drawn float which reduces cost of highway finishing. Appearance of highway after use of drag finisher. Jan '39 p23 Appearance of highway after use of drag finisher. July '43 p27 Drill rig auger, cleaning operations. Jan '39 p23 Appearance of highway after use of drag finisher. Dump trucks, types of. Emergency equipment; "mercy sled" rescue-aid and accessories May '41 p21 Two views showing sturdy construction of sled. Erosion-Related Equipment Bits and couplings for hydrauger drilling equipment. California horizontal drill. California horizontal drill. California sampler being disassembled to remove soil samples. California sampler being disassembled to remove soil samples. California drill in use. Horizontal drill in use. Hydrauger drill in operation. JIF '46 p4 Horizontal drill in use. Hydrauger drill in operation. JIF '88 p22 Hydrauger drill in operation. JIF '88 p22 Hydrauger drill in operation. JIF '88 p23 McCarthy rock-boring machine. McCarthy rock-boring machine. McCarthy rock-boring machine. Rotary drill, Rotary jet; Driven mandrel. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtaining the unconfined compressive strength of clay soil. Ucconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. JiF '58 p24 Vertical drilling equipment used on slide by Materials and Research Dept. JiF '58 p24 Vertical drilling equipment used on slide by Materials and Research Dept. JiF '58 p25 Geodimeter nine prism reflecting unit. Myl '6	Traveling Deflectometer; P43 Sensing probe being straddled by dual tires.	
Dozer spreader with spreader box blade attachment. Drag finisher, new type of in operation. Operation of mule-drawn float which reduces cost of highway finishing. Appearance of highway after use of drag finisher. Jan '39 p23 Appearance of highway after use of drag finisher. Jan '39 p23 Drill rig auger, cleaning operations. Jump trucks, types of, Emergency equipment; "mercy sled" rescue-aid and accessories May '41 p21 Two views showing sturdy construction of sled. Erosion-Related Equipment Bits and couplings for hydrauger drilling equipment. California horizontal drill. California sampler being disassembled to remove soil samples. California sampler being disassembled to remove soil samples. Cluvert cleaning spoon, tractor powered. Horizontal drill in use. Hydrauger drill in use. Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. MyA '48 p7 Large drill rig in position for making deep borings in a landslide area. J/F '58 p21 Rotary drill; Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compre		
Drag finisher, new type of in operation. Operation of mule-drawn float which reduces cost of highway finishing. Appearance of highway after use of drag finisher. Dump trucks, types of. Emergency equipment; "mercy sled" rescue-aid and accessories My '43 p27 Two views showing sturdy construction of sled. Bits and couplings for hydrauger drilling equipment. Bits and couplings for hydrauger drilling equipment. California horizontal drill. Culvert cleaning spoon, tractor powered. Horizontal drill in use. Horizontal drill in use. Hydrauger drill in operation. Jif '58 p19 Letey drill rig in position for making deep borings in a landslide area. Jif '58 p22 McCarthy rock-boring machine. McCarthy rock-boring machine. Rotary drill; Rotary jet; Driven mandrel. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Uconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Five Sp p24 Vertical drilling equipment used on slide by Materials and Research Dept. Jif '58 p25 Panel view of Geodimeter unit. Typical operational set-up at night. Various elements of reflecting unit. Mij '62 p55 Conducting Geodimeter course. Graders Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment of the wheel drive motor grader. Jin '38 p24 Auger-type rotary unit mounted on 4-wheel drive motor grader. Jin '39 p20 "Curry comb' or spiked tooth type on 75-ft. boom attached to shovel.	Dozer spreader with spreader box blade attachment.	
Operation of mule-drawn float which reduces cost of highway finishing. Appearance of highway after use of drag finisher. Jan '39 p23 Appearance of highway after use of drag finisher. Drill rig auger, cleaning operations. Myd '45 p27 Emergency equipment; "mercy sled" rescue-aid and accessories Two views showing sturdy construction of sled. Erosion-Related Equipment Bits and couplings for hydrauger drilling equipment. MyA '55 p26 California horizontal drill. California sampler being disassembled to remove soil samples. California sampler being disassembled to remove soil samples. Louvert cleaning spoon, tractor powered. Horizontal drill in use. Hydrauger drill in operation. Jif '58 p29 Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Lever-type loading device with consolidometers in place. MyA '55 p28 McCarthy rock-boring machine. Rotary drill; Rotary jet; Driven mandrel. Settlement measuring device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. N/D '48 p16 Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression test for determining shear strength of soils. Unconfined compression test for determining shear strength of soils. Unconfined compression test for determining shear strength of soils. Unconfined compression test for determining shear strength of soils. Unconfined compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. Myl '62 p50 Myl '62 p51 Typical operational set-up at night. Vyrious elements of reflecting unit. Myl '62 p51 Typical opera		
Appearance of highway after use of drag finisher. Drill rig auger, cleaning operations. Dump trucks, types of. Muy '43 p27 Emergency equipment; "mercy sled" rescue-aid and accessories May '41 p21 Two views showing sturdy construction of sled. Erosion-Related Equipment Bits and couplings for hydrauger drilling equipment. All A '55 p28 California horizontal drill. Culvert cleaning spoon, tractor powered. Horizontal drill in use. Hydrauger drill in operation. Jif '58 p19 Culvert cleaning spoon, tractor powered. Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Large drill rig in position for making deep borings in a landslide area. Jif '58 p23 McCarthy rock-boring machine. Rotary drill; Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Ploat finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. Panel view of Geodimeter unit. Myl '62 p50 Panel view of Geodimeter course. Graders Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment on 4-wheel drive motor grader. Jia '39 p20 "Curvry comb" or spiked tooth type on 75-ft. boom attached to shovel.		
Drill rig auger, cleaning operations. Dump trucks, types of. Emergency equipment; "mercy sled" rescue-aid and accessories May '41 p21 Two views showing sturdy construction of sled. Bits and couplings for hydrauger drilling equipment. Bits and couplings for hydrauger drilling equipment. California horizontal drill. California sampler being disassembled to remove soil samples. California sampler being disassembled to remove soil samples. California drill in use. Hydrauger drill in operation. Jfr '58 p19 Culvert cleaning spoon, tractor powered. Hydrauger drill in operation. Jfr '58 p22 Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Large drill rig in position for making deep borings in a landslide area. Jfr '58 p17 Lever-type loading device with consolidometers in place. M/A '55 p28 McCarthy rock-boring machine. Rotary drill; Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. MJ '62 p50 Panel view of Geodimeter unit. MJ '62 p55 Craders Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipm		_
Dump trucks, types of. Emergency equipment; "mercy sled" rescue-aid and accessories Two views showing sturdy construction of sled. Erosion-Related Equipment Bits and couplings for hydrauger drilling equipment. California horizontal drill. California sampler being disassembled to remove soil samples. California sampler being disassembled to remove soil samples. California sampler being disassembled to remove soil samples. California sampler being disassembled to remove soil samples. California sampler being disassembled to remove soil samples. California sampler being disassembled to remove soil samples. Loulvert cleaning spoon, tractor powered. Horizontal drill in use. Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. MyA '55 p28 McCarthy rock-boring machine. MoCarthy rock-boring machine. MoCarthy rock-boring machine. MoCarthy rock-boring machine. MoCarthy rock-boring machine. Rear view of a fill. Shaping and compacting device used to read settlement of ground beneath the weight of a fill. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Ploat finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. MJ '62 p52 Vertical drilling equipment used on slide by Materials and Research Dept. Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. MJ '62 p55 Panel view of Geodimeter unit. MJ '62 p52 Vertical drilling equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper.		
Emergency equipment; "mercy sled" rescue-aid and accessories Two views showing sturdy construction of sled. Erosion-Related Equipment Bits and couplings for hydrauger drilling equipment. California horizontal drill. California sampler being disassembled to remove soil samples. California sampler being disassembled to remove soil samples. Culvert cleaning spoon, tractor powered. Horizontal drill in use. Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Large drill rig in position for making deep borings in a landslide area. Lever-type loading device with consolidometers in place. McCarthy rock-boring machine. McCarthy rock-boring machine. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Geodimeter nine prism reflecting unit. Panel view of Geodimeter unit. MJ '62 p50 Panel view of Geodimeter unit. MJ '62 p55 Conducting Geodimeter course. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to shovel.		•
Two views showing sturdy construction of sled. Erosion-Related Equipment Bits and couplings for hydrauger drilling equipment. California horizontal drill. California sampler being disassembled to remove soil samples. California sampler being disassembled to remove soil samples. Culvert cleaning spoon, tractor powered. Horizontal drill in use. Horizontal drill in operation. Jfr '58 p19 Letted mandrel, double wall type; Jetted mandrel, closed-end type. Jfr '58 p21 Letted mandrel, double wall type; Jetted mandrel, closed-end type. M/A '48 p7 Large drill rig in position for making deep borings in a landslide area. Jfr '58 p21 Lever-type loading device with consolidometers in place. M/A '55 p27 Rotary drill; Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. N/D '48 p16 Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Panel view of Geodimeter unit. MJ '62 p51 Panel view of Geodimeter unit. MJ '62 p52+ Various elements of reflecting unit. MJ '62 p51 Front of Model 4 Geodimeter. Conducting Geodimeter course. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates		-
Bits and couplings for hydrauger drilling equipment. Bits and couplings for hydrauger drilling equipment. California horizontal drill. California sampler being disassembled to remove soil samples. JIF '58 p19 Culvert cleaning spoon, tractor powered. Horizontal drill in use. JJF '58 p22 Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Large drill rig in position for making deep borings in a landslide area. Lever-type loading device with consolidometers in place. M/A '48 p7 Large drill; Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. MJ '62 p59 Panel view of Geodimeter unit. MJ '62 p51 Typical operational set-up at night. Vi '38 p24 Augor-type rotary unit mounted on 4-wheel drive motor grader. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment on 4-wheel drive motor grader. MJ '43 p21 "Curry comb' or spiked tooth type on 75-ft. boom attached to shovel.		
Bits and couplings for hydrauger drilling equipment. California horizontal drill. California sampler being disassembled to remove soil samples. California sampler being disassembled to remove soil samples. J/F '58 p19 Culvert cleaning spoon, tractor powered. Horizontal drill in use. Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Large drill rig in position for making deep borings in a landslide area. J/F '58 p17 Lever-type loading device with consolidometers in place. M/A '48 p7 Lever-type loading device with consolidometers in place. M/A '55 p28 McCarthy rock-boring machine. Rotary drill; Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. N/D '48 p16 Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. MJ '62 p51 Typical operational set-up at night. Various elements of reflecting unit. MJ '62 p52+ Various elements of reflecting unit. MJ '62 p55 Conducting Geodimeter course. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment on 4-wheel drive motor grader. MJ '43 p21 "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel.	· · ·	J
California horizontal drill. California sampler being disassembled to remove soil samples. Culvert cleaning spoon, tractor powered. Horizontal drill in use. Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Large drill rig in position for making deep borings in a landslide area. Lever-type loading device with consolidometers in place. M/A '55 p27 Rotary drill; Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. N/D '48 p16 Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. MyJ '62 p51 Panel view of Geodimeter unit. MyJ '62 p55 Conducting Geodimeter curis. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. MyJ '43 p21 "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel.		M/A '55 p26
California sampler being disassembled to remove soil samples. Culvert cleaning spoon, tractor powered. Horizontal drill in use. Hydrauger drill in operation. J/F '58 p22 Hydrauger drill in operation. J/F '58 p28 Hydrauger drill in operation. J/F '58 p29 Large drill rig in position for making deep borings in a landslide area. Lever-type loading device with consolidometers in place. M/A '48 p7 Lever-type loading device with consolidometers in place. M/A '48 p7 Rotary drill; Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. J/F '58 p21 Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Ploat finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. M/J '62 p50 Panel view of Geodimeter unit. Typical operational set-up at night. Various elements of reflecting unit. M/J '62 p51 Typical operational set-up at night. Various elements of reflecting unit. M/J '62 p52+ Various elements of reflecting unit. M/J '62 p55- Conducting Geodimeter course. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. M/J '43 p21 "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel.		
Culvert cleaning spoon, tractor powered. Horizontal drill in use. Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Large drill rig in position for making deep borings in a landslide area. Lever-type loading device with consolidometers in place. M/A '48 p7 Lever-type loading device with consolidometers in place. M/A '55 p28 McCarthy rock-boring machine. Rotary drill; Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. Panel view of Geodimeter unit. M/J '62 p50 Panel view of Geodimeter unit. M/J '62 p51 Typical operational set-up at night. Various elements of reflecting unit. M/J '62 p51 Typical operational set-up at night. M/J '62 p52+ Various elements of reflecting unit. Front of Model 4 Geodimeter. Conducting Geodimeter course. Attachment to finishing equipment plates on grader to make scraper. Atger-type rotary unit mounted on 4-wheel drive motor grader. Jun '38 p24 Auger-type rotary unit mounted on 4-wheel drive motor grader. Jun '38 p24 Auger-type rotary unit mounted on 5-ft. boom attached to shovel.		
Horizontal drill in use. Hydrauger drill in operation. J/F '58 p22 Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Large drill rig in position for making deep borings in a landslide area. Lever-type loading device with consolidometers in place. M/A '48 p7 Lever-type loading device with consolidometers in place. M/A '55 p27 Rotary drill; Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. J/F '58 p24 Vertical drilling equipment used on slide by Materials and Research Dept. Geodimeter nine prism reflecting unit. Panel view of Geodimeter unit. M/J '62 p50 Panel view of Geodimeter unit. M/J '62 p50 Typical operational set-up at night. Various elements of reflecting unit. M/J '62 p55 Graders Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. J/A '58 p13+ Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel.		
Hydrauger drill in operation. Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Large drill rig in position for making deep borings in a landslide area. Lever-type loading device with consolidometers in place. McCarthy rock-boring machine. McCarthy rock-boring machine. McCarthy rock-boring machine. MoCarthy rock space and roch seater strength of gound menath the weight pace. Mocarthy rock space and roch se		
Jetted mandrel, double wall type; Jetted mandrel, closed-end type. Large drill rig in position for making deep borings in a landslide area. Lever-type loading device with consolidometers in place. McCarthy rock-boring machine. Rotary drill; Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Panel view of Geodimeter unit. Panel view of Geodimeter unit. MJ '62 p59 Panel view of Geodimeter unit. MJ '62 p51 Typical operational set-up at night. Various elements of reflecting unit. MJ '62 p52+ Various elements of reflecting unit. MJ '62 p55 Graders Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. MJ '43 p21 "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel.		
Large drill rig in position for making deep borings in a landslide area. Lever-type loading device with consolidometers in place. McCarthy rock-boring machine. Rotary drill; Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. MJ '62 p59 Panel view of Geodimeter unit. MJ '62 p51 Typical operational set-up at night. Various elements of reflecting unit. MJ '62 p54 Front of Model 4 Geodimeter. Conducting Geodimeter course. MJ '62 p57 Graders Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. MJ '43 p21 "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel.		
Lever-type loading device with consolidometers in place. McCarthy rock-boring machine. Rotary drill; Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. N/D '48 p16 Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. MJ '62 p59 Panel view of Geodimeter unit. MJ '62 p51 Typical operational set-up at night. Various elements of reflecting unit. MJ '62 p54 Front of Model 4 Geodimeter. Conducting Geodimeter course. MJ '62 p57 Graders Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. MJ '43 p21 "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. J/F '58 p23 M/A '48 p7 M/A '48 p7 M/A '48 p16 M/A '48 p16 M/D '48 p16 N/D '49 p		
McCarthy rock-boring machine. Rotary drill; Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. J/F '58 p24 Vertical drilling equipment used on slide by Materials and Research Dept. J/F '52 p59 Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. Panel view of Geodimeter unit. MJ '62 p50 Panel view of Geodimeter unit. MJ '62 p51 Typical operational set-up at night. Various elements of reflecting unit. MJ '62 p52+ Various elements of reflecting unit. MJ '62 p55 Graders Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment of months and the properties of t		
Rotary drill; Rotary jet; Driven mandrel. Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. J/F '58 p24 Vertical drilling equipment used on slide by Materials and Research Dept. J/F '52 p59 Float finisher, new motorized mechanical type. O '38 p16 Geodimeter nine prism reflecting unit. MJ '62 p50 Panel view of Geodimeter unit. MJ '62 p51 Typical operational set-up at night. Various elements of reflecting unit. MJ '62 p54 Front of Model 4 Geodimeter. Conducting Geodimeter course. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Jun '38 p24 Auger-type rotary unit mounted on 4-wheel drive motor grader. J/A '58 p13+ Blade grader, tow-type. M/J '43 p21 "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel.		
Settlement measuring device used to read settlement of ground beneath the weight of a fill. Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. J/F '58 p24 Vertical drilling equipment used on slide by Materials and Research Dept. J/F '58 p24 Vertical finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. Panel view of Geodimeter unit. M/J '62 p51 Typical operational set-up at night. Various elements of reflecting unit. Front of Model 4 Geodimeter. Conducting Geodimeter course. M/J '62 p55 Conducting Geodimeter course. Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Jun '38 p24 Auger-type rotary unit mounted on 4-wheel drive motor grader. J/A '58 p13+ Blade grader, tow-type. M/J '43 p21 "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel.		
Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. J/F '58 p21 Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. J/F '58 p24 Vertical drilling equipment used on slide by Materials and Research Dept. J/F '52 p59 Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. M/J '62 p50 Panel view of Geodimeter unit. M/J '62 p51 Typical operational set-up at night. Various elements of reflecting unit. M/J '62 p54 Front of Model 4 Geodimeter. Conducting Geodimeter course. M/J '62 p55 Conducting Geodimeter course. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. M/J '43 p21 "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. Jun '39 p20		•
Shaping and compacting device used to remove water from highways, front view. Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. J/F '58 p21 Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. J/F '58 p24 Vertical drilling equipment used on slide by Materials and Research Dept. J/F '52 p59 Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. M/J '62 p50 Panel view of Geodimeter unit. M/J '62 p51 Typical operational set-up at night. Various elements of reflecting unit. M/J '62 p54 Front of Model 4 Geodimeter. Conducting Geodimeter course. M/J '62 p55 Conducting Geodimeter course. Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. N/D '48 p16 N	weight of a fill.	J/F '58 p21
Rear view of device showing finished dike emerging. Windrow sizer for use ahead of shaping and compacting device. Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. Panel view of Geodimeter unit. MJ '62 p50 Panel view of Geodimeter unit. MJ '62 p51 Typical operational set-up at night. Various elements of reflecting unit. MJ '62 p54 Front of Model 4 Geodimeter. Conducting Geodimeter course. Attachment to finishing equipment plates on grader to make scraper. Attachment to finishing equipment plates on grader to make scraper. Jun '38 p24 Auger-type rotary unit mounted on 4-wheel drive motor grader. J/A '58 p13+ Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. Jan '39 p20	Shaping and compacting device used to remove water from highways, front view.	
Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. Panel view of Geodimeter unit. Typical operational set-up at night. Various elements of reflecting unit. M/J '62 p51 Tront of Model 4 Geodimeter. Conducting Geodimeter course. Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. J/F '58 p23 J/F '58 p23 J/F '58 p23 J/F '58 p24 J/F '52 p59 O '38 p16 M/J '62 p50 M/J '62 p51 M/J '62 p51 M/J '62 p55 Conducting Geodimeter. M/J '62 p55 Graders Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. J/A '58 p13+ Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. Jan '39 p20		•
Spring-loaded consolidometers used to obtain test data for estimating settlement. Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. Panel view of Geodimeter unit. Typical operational set-up at night. Various elements of reflecting unit. M/J '62 p51 Tront of Model 4 Geodimeter. Conducting Geodimeter course. Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. J/F '58 p23 J/F '58 p23 J/F '58 p23 J/F '58 p24 J/F '52 p59 O '38 p16 M/J '62 p50 M/J '62 p51 M/J '62 p51 M/J '62 p55 Conducting Geodimeter. M/J '62 p55 Graders Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. J/A '58 p13+ Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. Jan '39 p20		
Triaxial compression test for determining shear strength of soils. Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. J/F '58 p24 Vertical drilling equipment used on slide by Materials and Research Dept. J/F '52 p59 Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. Panel view of Geodimeter unit. M/J '62 p50 Typical operational set-up at night. Various elements of reflecting unit. M/J '62 p54 Front of Model 4 Geodimeter. Conducting Geodimeter course. M/J '62 p55 Conducting Geodimeter course. M/J '62 p57 Graders Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. J/F '58 p23 J/F '58 p24 J/F '58 p24 M/J '62 p59 M/J '62 p50 M/J '62 p51 M/J '62 p55 M/J '62 p55 M/J '62 p55 Graders Attachment to finishing equipment plates on grader to make scraper. Jun '38 p24 Auger-type rotary unit mounted on 4-wheel drive motor grader. J/A '58 p13+ Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. Jan '39 p20		J/F '58 p21
Unconfined compression apparatus for obtaining the unconfined compressive strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. Panel view of Geodimeter unit. M/J '62 p50 Typical operational set-up at night. Various elements of reflecting unit. M/J '62 p54 Front of Model 4 Geodimeter. Conducting Geodimeter course. M/J '62 p55 Graders Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. J/F '58 p24 J/F '52 p59 O '38 p16 M/J '62 p50 M/J '62 p51 M/J '62 p55 M/J '62 p55 M/J '62 p55 Jun '38 p24 J/A '58 p13+ Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. Jan '39 p20		-
strength of clay soil. Vertical drilling equipment used on slide by Materials and Research Dept. J/F '52 p59 Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. Panel view of Geodimeter unit. M/J '62 p50 Typical operational set-up at night. Various elements of reflecting unit. M/J '62 p54 Front of Model 4 Geodimeter. Conducting Geodimeter course. M/J '62 p55 Graders Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. J/F '58 p24 J/F '52 p59 O '38 p16 M/J '62 p50 M/J '62 p51 M/J '62 p55 M/J '62 p55 Typical operational set-up at night. M/J '62 p55 M/J '62 p55 M/J '62 p55 M/J '62 p57 Graders Attachment to finishing equipment plates on grader to make scraper. Jun '38 p24 Auger-type rotary unit mounted on 4-wheel drive motor grader. J/A '58 p13+ M/J '43 p21 "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. Jan '39 p20	Unconfined compression apparatus for obtaining the unconfined compressive	•
Vertical drilling equipment used on slide by Materials and Research Dept. J/F '52 p59 Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. Panel view of Geodimeter unit. M/J '62 p50 Typical operational set-up at night. Various elements of reflecting unit. M/J '62 p54 Front of Model 4 Geodimeter. Conducting Geodimeter course. M/J '62 p55 Conducting Geodimeter course. M/J '62 p57 Graders Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. J/F '52 p59 O '38 p16 M/J '62 p50 M/J '62 p51 M/J '62 p55 M/J '62 p55 M/J '62 p57		J/F '58 p24
Float finisher, new motorized mechanical type. Geodimeter nine prism reflecting unit. Panel view of Geodimeter unit. Typical operational set-up at night. Various elements of reflecting unit. Front of Model 4 Geodimeter. Conducting Geodimeter course. M/J '62 p55 Conducting Geodimeter course. M/J '62 p57 Graders Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. O '38 p16 M/J '62 p50 M/J '62 p51 M/J '62 p55 M/J '62 p55 Typical operational set-up at night. M/J '62 p55 M/J '62 p57 M/J '62 p57 M/J '62 p57 Graders Attachment to finishing equipment plates on grader to make scraper. Jun '38 p24 J/A '58 p13+ M/J '43 p21 "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. Jan '39 p20	Vertical drilling equipment used on slide by Materials and Research Dept.	
Geodimeter nine prism reflecting unit. Panel view of Geodimeter unit. M/J '62 p51 Typical operational set-up at night. Various elements of reflecting unit. Front of Model 4 Geodimeter. Conducting Geodimeter course. M/J '62 p55 Conducting Geodimeter course. M/J '62 p55 Graders Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. M/J '62 p50 M/J '62 p52+ M/J '62 p55 M/J '62 p55 M/J '62 p57 Graders Attachment to finishing equipment plates on grader to make scraper. Jun '38 p24 J/A '58 p13+ M/J '43 p21 "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. Jan '39 p20		
Typical operational set-up at night. Various elements of reflecting unit. Front of Model 4 Geodimeter. Conducting Geodimeter course. M/J '62 p55 Craders Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. M/J '62 p55 M/J '62 p55 M/J '62 p57 Jun '38 p24 Auger-type rotary unit mounted on 4-wheel drive motor grader. J/A '58 p13+ M/J '43 p21 Jan '39 p20		
Typical operational set-up at night. Various elements of reflecting unit. Front of Model 4 Geodimeter. Conducting Geodimeter course. M/J '62 p55 Craders Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. M/J '62 p55 M/J '62 p55 M/J '62 p57 Jun '38 p24 Auger-type rotary unit mounted on 4-wheel drive motor grader. J/A '58 p13+ M/J '43 p21 Jan '39 p20	Panel view of Geodimeter unit.	M/J '62 p51
Various elements of reflecting unit. Front of Model 4 Geodimeter. Conducting Geodimeter course. M/J '62 p55 Conducting Geodimeter course. M/J '62 p55 Graders Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. M/J '62 p55 M/J '62 p55 M/J '62 p55 M/J '62 p55 M/J '62 p57 Graders Auger-type rotary unit mounted on grader to make scraper. Jun '38 p24 M/J '43 p21 "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. Jan '39 p20	Typical operational set-up at night.	
Conducting Geodimeter course. M/J '62 p57 Graders Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. Jun '38 p24 M/J '43 p21 "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. Jan '39 p20		
Conducting Geodimeter course. M/J '62 p57 Graders Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. M/J '62 p57 Jun '38 p24 J/A '58 p13+ M/J '43 p21 "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. Jan '39 p20	Front of Model 4 Geodimeter.	M/J '62 p55
Attachment to finishing equipment plates on grader to make scraper. Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. Jun '38 p24 J/A '58 p13+ M/J '43 p21 Jan '39 p20	Conducting Geodimeter course.	
Auger-type rotary unit mounted on 4-wheel drive motor grader. Blade grader, tow-type. "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. J/A '58 p13+ M/J '43 p21 Jan '39 p20	Graders	-
Blade grader, tow-type. M/J '43 p21 "Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. Jan '39 p20	Attachment to finishing equipment plates on grader to make scraper.	Jun '38 p24
"Curry comb" or spiked tooth type on 75-ft. boom attached to shovel. Jan '39 p20	Auger-type rotary unit mounted on 4-wheel drive motor grader.	
	Blade grader, tow-type.	M/J '43 p21
Elevating grader in operation at Middle Lake (Modoc Co.). Apr '38 p25	"Curry comb" or spiked tooth type on 75-ft. boom attached to shovel.	Jan '39 p20
	Elevating grader in operation at Middle Lake (Modoc Co.).	Apr '38 p25

EQUIPMENT , Continued	
Grader blade level device on mold-board of grader.	N '37 p27
Motor grader attachment device; device in operation.	J/F '46 p2
Light disc harrow; disc attachment for use on motor graders.	D '42 p11
Motor graders, types of.	M/J '43 p20
Motor grader with new Preco automatic blade control attachment.	J/A '57 p4
Device in operation.	J/A '57 p42
Gyroscopic equipment, ready for travel in station wagon.	J/A '52 p13
Rear of station wagon showing warning sign and flags.	J/A '52 p14
View of interior operating instruments.	J/A '52 p15
Vertical gyroscope installation; Generator and converter installation.	J/A '52 p16
Headquarters Shops, Sacramento; general view ca. 1950.	S/O '50 p167
Interior of Parts Dept. dispensing stockroom at Headquarters Shop.	S/O '51 p27
Racks for storage of tire inventories.	S/O '51 p27
Truck shop, interior.	N/D '61 p34
Trimmer preparing new fender flaps for installation on heavy trucks.	N/D '61 p34
Vehicles being serviced and repaired at Equipment Dept. truck repair shop.	N/D '60 p27
Historic equipment, early twentieth-century (pre-1937)	F
Asphaltic oil spreader equipment, horse-drawn 1913. S '37 p22;	S/O '50 p165
Buffalo-Pitts steam roller, 1913.	S/O '50 p164
Caterpillar tractor pulling Austin-Western scarifier, 1913.	S/O '50 p164
Concrete mixer on state highway near Roseville, Placer Co., in 1913.	N/D '52 p45
Earth-moving equipment, wood-burning.	J/A '64 p29
Fordson & Monroe adjustable superior 2-way road drag, 1924.	S/O '50 p164
Fordson iron mule used on highway construction in Plumas Co., 1933-35.	S/O '50 p164
Fordson tractor with canopy top, date ca 1912-1920s.	S/O '50 p164
Liberty dump truck at job site, ca 1920s.	J/A '64 p32
Power shovel working at Alder Bluff in Del Norte Co. ca. 1925.	J/A '64 p29
Road oiler, horse-drawn, 1913; Motorized road oiler ca. 1920s.	J/F '61 p5
Roller and truck used to haul asphalt for state highway, San Mateo Co. 1913.	J/A '56 p66
Steam tractor used ca. 1900 to tow trailers transporting lumber.	M/J '65 p22
Street sweeping machine, horse-drawn 1905 model.	J/F '52 p36
Early day sweeper and his outfit.	J/F '52 p36
Stripe-marking machine, early-late 1920s hand-powered units.	O '39 p22
Truck mounted unit, early 1930s; Chassis type marker, pre-1937.	O '39 p22
Three-mule team hauling sand stuck in mud bog.	S/O '50 p164
Litter removal equipment	Bro sopio
Street sweeping machines	
Badly worn broom; Completed broom ready for installation.	J/F '52 p39
High-speed street sweeper.	M/J '53 p3
Horse-drawn 1905 model; Early day sweeper and his outfit.	J/F '52 p36
Power broom type J/F '52 p37+;	M/J '43 p25
Rotary broom cleaning a gutter on Bayshore Fwy.	N/D '64 p67
Rotary sweeper cleaning gutters on Bayshore Fwy. in San Mateo Co.	N/D '65 p23
Traction driven broom.	M/J '43 p25
Weed and brush flail; Rotary flail in operation.	M/J '55 p31
Wheel tractor attachment type sweeper.	M/J '43 p25
Vacuum cleaner	141/3 15 p25
Dumping load; Opened rear gates of vacuum machine.	N/D '51 p47
Operator and push-button mechanism.	N/D '51 p48
Smaller sized vacuum cleaner and sweeper in operation.	J/A '52 p59
Vacuum cleaner with tow truck loaded with oversize trash.	N/D'51 p47
Vacuum trash collector in operation.	J/A '61 p54

EQUIPMENT, Continued

EQUIPMENT, Continued	
Maintenance equipment, general	
Collapsible, universal truck-mounted, one-man hoist used for maintaining	
high roadside and overhead structures.	M/J '53 p2
Combination loading and breaking equipment pulverizing hardened	
bituminous pavement in process of remixing and stabilizing.	S/O '51 p33
Edge grinding machine.	J/F '46 p4
Emulsion kettle devices.	J/F '46 p2
Gravity flow screening unit.	J/F '46 p5
Heavy truck-tractor and semi-trailer unit used in expediting movement of	-
highway maintenance and emergency equipment.	M/J '53 p4
Power loader picking up spoil from roadside ditches.	S/O '50 p157
Road-type disc scarifier assembly.	D '42 p11
Rock removal; plow mounted to front end of truck for rock removal.	J/F '46 p3
Self-propelled, self-feeding loader with portable crushing equipment used	•
to reclaim road surfaces.	M/J '53 p4
Sign/lighting maintenance equipment (freeways)	1
Forklift truck used to load freeway signs on a trailer.	N/D '65 p35
"Giraffe" used to relamp an electrolier on freeway.	N/D '64 p24
Hydraulically-raised truck-mounted lift used to service high voltage	1
freeway lighting systems.	M/J '53 p5
Hydraulic tower lift truck.	S/O '56 p56
Trench-cutting tool, tractor-mounted.	J/F '46 p4
Truck shovel on slide removal work.	S/O '50 p157
Mudjack, two-wheel cart-type; Large-type mudjack.	M/J '43 p21
Outrigger cutting template placed on standard bulldozer unit.	Jan '39 p21
Pavement marking equipment	r
Auto with flags preceding car with stripe marking equipment.	N '41 p26
Second car with loud speaker under trunk door to warn intercepting traffic.	N '41 p27
Broken-traffic-line striping machine in operation.	S '42 p12+
Dashed traffic striping machine attachments.	J/F '46 p3
Early 1920s hand-pushed striping unit; Hand powered machine, late 1920s.	O '39 p22
Experimental model operated from truck cab.	J/F '60 p62
Front view of traffic stripe marker showing guide pointer and hose connection.	O '37 p10
Rear view of stripe marker. O '37 p10;	O '39 p23
Truck body of stripe marker showing compressor, paint tanks and agitator.	O '37 p11
Full view of 1937 stripe marker in use.	O '37 p11
Improved model traffic striper in operation on I-80 [US 40] east of Roseville.	M/J '63 p51
Loaded paint striping truck.	M/J '63 p52
Paint guns and bead dispensers on end of lightweight extension arm.	M/J '63 p52
New unit with extension arm in action, and older, sulky-type unit.	M/J '63 p53
New model traffic striper in operation, 1964.	N/D '64 p30
Push-button traffic striper in operation.	N/D '61 p35
Spotting-wheel device for marking pavement	
Spotting wheel device Pointer assembly attached to front bumper of truck.	J/F '44 p17
Marking wheel attached to rear bumper.	J/F '44 p17
Workman controlling paint valves and wheel lifting lever.	J/F '44 p17
Spotting Device for	M/A '50 p4+
Striping machine ca. 1947.	M/J '47 p5
Detail of levers on stripe marking machine.	M/J '47 p6
Disc on cam of stripe marking machine.	M/J '47 p7
Striping machine, ca. 1959.	J/F '60 p62
	1

EQUIPMENT, Continued

EQUIPMENT, Continued	
Thermoplastic striping units	
Thermoplastic striping unit placing crosswalk markings.	N/D '62 p32
Thermoplastic striping truck.	S/O '62 p47
Stripe applicator in operation.	S/O '62 p47
Changing applicator with hot thermoplastic compound.	S/O '62 p47
Fuel tanks full of liquid petroleum for use in thermoplastic heating operation.	S/O '62 p48
Changing kettle with thermoplastic material.	S/O '62 p48
Traffic line marker with "mother" truck, 1955.	N/D '55 p49
Arrangement of paint tanks showing air driven mechanical agitators.	N/D '55 p50
Close-up of compressor and paint tanks.	N/D '55 p50
Interior view of "mother" trucks.	N/D '55 p50
Control panel on main compress of "mother" unit.	N/D '55 p50
Traffic striper with narrower tread.	J/A '61 p31
Striper unit loaded onto modified hydraulic tailgate.	J/A '61 p32
Cycling mechanism mounted under body behind the cab.	J/A '61 p32
Control panels in cab interior.	J/A '61 p33
Truck mounted unit, early 1930s; Chassis type marker, pre-1937.	O '39 p22
3-stripe center line chassis-type unit, ca. 1937.	O '39 p22
Complete striping outfit in operation restriping triple line.	O '39 p23
Close-up showing paint and air lines to each spray gun and controls.	O '39 p23
Paving-Related EquipmentSee also PAVING & PAVEMENT	F
Apparatus for moisture determination of bituminous mixtures.	J/A '57 p60
Athey loader and crusher in operation.	N/D '50 p24
Automatic weighing device for proportioning asphalt concrete mix.	O '37p18
Bituminous distributors.	D '42 p12
Concrete joint cutter operated by hand.	M/J '46 p23
Extraction apparatus to determine amount of asphalt in bituminous mixtures.	J/A '57 p60
Field-type extractor for testing moisture content of bituminous mixes.	M/A '54 p30+
Gridroller and tractor.	N/D '50 p24
Instrument used to measure supporting strength of roads for traffic loads.	N/D '66 p8
Kelley-ball device being used to determine concrete slump.	N/D '65 p25
Machine used to cut weakened plane joints at 15-ft intervals.	M/J '46 p23
Mechanical kneading compactor designed by Materials and Research Dept.	J/A '57 p60
Mechanical mixer for mixing bituminous test specimens.	J/A '57 p60
Mobile asphalt concrete plant ready to roll.	M/J '61 p58
Typical layout of mobile asphalt concrete plant.	M/J '61 p58
Pavers	1
Looking down on steering guide of paver from operator's seat.	J/F '48 p16
Side view of paver, steering guide; Steering guide for trucks.	J/F '48 p16
Longitudinal joint shaper attachment to paver.	J/F '48 p17
Paver with transverse beam to support pendulum and control equipment.	M/A '61 p49+
Portable crane with 2500-lb. iron ball attached, used to break out old pavement.	Jun '37 p14
Iron ball in place on crane truck for transportation.	Jun '37 p14
Pressure cell on steel plate and concrete blocks placed 8-ft. below grade	
to test compaction strength of ball.	Jun '37 p14
Resilometer used to measure springiness of soils supporting pavements.	J/A '57 p65
Scarifer attachment behind scraper aids in working rocky formations.	S '39 p20
Self-propelled track-mounted machine spreading aggregate base.	J/F '64 p55
Slip-form paving equipment.	N/D '60 p16
Stabilometer being used to determine stability of pavements.	N/D '60 p25
Viscosimeter for determining grade of liquid asphalt.	J/A '57 p61
	1

FOUIPMENT Continued

EQUIPMENT, Continued	
Photogrammetry equipment	
Scribing with a swivel cutting tool; Scribing with a sapphire-tip cutting tool.	J/A '63 p32
Freehand instruments and needles.	J/A '63 p34
Pile-driving; portable tractor-mounted pile driving rig.	J/F '46 p4
Porter Rig with tools in place ready for operation.	S '37 p2
Combination foundation drilling equipment dismantled and ready for road.	S '37 p3
Close-up view of rig showing hand bailer, extension rod for soil sampler, churn	•
bit rotary bucket with Kelly bar and driving yolk, and the sampler assembly.	S '37 p3
Foundation inspector sitting in top of 30 ft. boring following inspection of the	•
ground to bottom of an 80 ft. hole.	S '37 p3
Profilograph (measures/evaluates pavement roughness)	•
California-type profilograph.	M/A '65 p75
Completed units M/A '44 p7;	M/J '57 p15
Assembling Profilograph frame; Close-up of recording mechanism.	M/A '44 p7
Assembled Profilograph, ready for use; Profilograph in use.	M/A '44 p7
Hand propelled profilograph.	M/A '60 p54
Mobile profilograph in operation, 1955.	M/A '60 p53
Multiwheel-type with 10-ft base length.	M/A '60 p52
Outside California	•
Street in Pompeii showing grooves worn by chariot wheels.	J/F '60 p47
Profilograph constructed by State of Illinois for Bates road test, ca. 1922.	J/F '60 p47
BPR Pavement Roughness Indicator, outrigger trailer and tow car.	J/F '60 p48
Multiwheel profilometer apparatus of the British Road Research Lab.	J/F '60 p50
Multiple counter bump classifier used by the British.	J/F '60 p51
Photo illustrating the principle of a profile correcting mechanism.	J/F '60 p51
AASHO road test profilometer.	J/F '60 p52
Michigan profilograph unit modeled after a California design.	J/F '60 p68
Special body made for Profilograph truck.	S/O '60 p40
Radiological monitoring equipment in operation.	M/A '55 p60
Research Equipment	•
Auger-type earth-drilling machine mounted on truck, used for soil testing and	
subsurface explorations.	M/J '53 p3
Bimetal thermometers being checked for accuracy.	N/D '64 p28
Corrugated shipping container	•
Empty metal shipping container on scale weighs 30-lbs.	J/F '51 p46
Metal shipping container with two concrete specimens weighs over 80-lbs.	J/F '51 p47
Comparison of metal and corrugated paper shipping containers and sample	•
cans which they are designed to carry.	J/F '51 p48
Corrugated paper container with two concrete specimens weighs in at 60-lbs.	J/F '51 p49
Gas chromatograph being used to determine the constitutes of paints and solvents.	N/D '65 p26
Meeting of Equipment Dept.'s Technical Research and Training Section.	N/D '65 p29
Mobile coring machine used for cutting cores from finished roadways.	N/D '65 p9
Nuclear device for measuring soil density being tested.	N/D '62 p32
Nuclear moisture density gauges being used in field.	N/D '64 p30
Nuclear units used to measure soil moisture.	M/J '65 p50+
Numec backcutter gage, which reflects gamma rays back from the soil	•
during soil compaction testing.	M/A '66 p42
Troxler transmission gage used to count gamma rays.	M/A '66 p42
Rock saw with adjustable specimen holder.	M/J '49 p43
Saw for cutting concrete and rock samples for lab inspection and tests.	J/A '43 p16
Soil testing drill rig for Materials and Research Dept.	S/O '50 p166
Stabilometer soil test in progress.	N/D '60 p32
· -	•

EQUIPMENT , Continued	
Rock shaker (Seitz) in operation; Construction of shaker.	O '37 p23
Rollers	_
Pneumatic-tired rollers; Three-wheel roller.	M/J '43 p23
Roller and truck used to haul asphalt for state highway, San Mateo Co. 1913.	J/A '56 p66
Tow-type roller; Tandem roller.	M/J '43 p24
Rooter tooth shoed used to root out gutters.	Jun '38 p24
Roughometers (measures roughness of pavement surfaces)	
Complete Roughometer.	S '40 p14
Method of mounting Roughometer rack and roller on an auto.	M/A '60 p51
Roughometer mounted on instrument board of an auto.	M/A '60 p51
Testing Roughometer with 1-in. boards, 1931.	M/A '60 p51
Scooter pots in operation.	F '38 p22
Screed, reconstructed model; Close-up of adjusting device.	S '37 p24
Seismographs	
Setting off shot point for seismic record.	M/J '60 p17
Reviewing photographic record from seismograph.	M/J '60 p17
Recording camera and fire controls with a dark room, developer, and fixing bath.	M/J '60 p19
Installing a geophone along shot line.	M/J '60 p20
Refraction seismograph equipment with recording equipment and amplifier.	M/J '60 p20
Refraction seismograph; blasting in connection with geological investigations.	N/D '60 p28
Shovels	
Highway hand shovel (Californian), and commercial shovel, showing difference	M/I (50 52
in lift and length; Man using commercial shovel; man with highway shovel.	M/J '50 p53
Truck mounted shovel; Crawler shovels.	M/J '43 p24
Slope-shapers	E (40 14
Dyke shaper with cross section attached to moldboard of grader.	F '42 p14
View of "V' shaped attachment.	F '42 p14
Shaper attachment leaves dyke with a level top.	F '42 p15
Close-up of typical well-shaped dyke made by above attachment.	F '42 p15
Shoulder dyke shaper.	M/A '48 p20
Side ditch and back slope shaper, dismantled; Shaper in operation.	M/A '48 p20
Snow-plows/snow related equipment Auger-blower snow plow.	M/I '52 m2
Auger-blower show plow. High powered road grader built in Australia.	M/J '53 p3
County Road Board snowplow.	N/D '52 p60 N/D '52 p61
Motor grader used to remove icepack.	N/D '64 p27
One-way snow plow; Reversible-type snow plow; "V" type snow plows.	M/J '43 p22
Redesigned rotary "Sno-blo" plow.	N/D '64 p27
Rotary snow plows.	M/J '43 p23
Snow plow with rotary mounted on motor grader in operation.	N/D '60 p27
Vehicle used to travel over frozen lakes and rivers in Manitoba, Canada.	M/A '61 p76
Spectroscope and accessory equipment.	M/J '52 p10
Spreader boxes: Gravity-type; Force feed-type; Rotating disc spreader.	M/J '43 p25
oproduct coxes. Gravity type, I offee feed type, Routing tipe spreader.	111/J TJ P2J

EOUIPMENT. Continued

EQUIPMENT, Continued	
Survey equipment	
Geodimeter unit, theodolite, portable generator, radio receiving set, slave	
(reflector unit), and walkie-talkie radio set used for relocation survey.	M/J '60 p16
Listening aid device used by surveyors	
Recorder and chairman in foreground, levelman in distance.	Jul '42 p2
"Listening aid" suspended from flag standard to receive levelman's calls.	Jul '42 p2
Plumb bobs being used to transfer measurement tape to point on ground.	N/D '51 p52
Plumb bob being used to center transit over survey point on ground.	N/D '51 p53
Six steps to making traffic flags for use on highways demonstrated.	S '42 p17
Transportation afforded state road surveyors, their instruments and equipment.	S/O '44 p7
Tank car heater; retort booster heaters.	D '42 p13
Tellurometer slave station; Reading Tellurometer data to recorder.	S/O '60 p58
Operating Tellurometer.	S/O '60 p59
Tractors; 1/2 ton truck; 3/4 ton truck.	M/J '43 p26
Traffic counting/speed determining equipment	1
Photo-electric roadside speed timer in action.	May '42 p7
Units of apparatus with W.M. Rieth who supervised its development.	May '42 p7
Vegetation control/removal equipment	J 1
2,000-gal semitrailer watering unit constructed at headquarters shop.	N/D '62 p34
Cutter developed to trim vegetation from curbing alongside highways.	N/D '66 p7
Evans spraybar used in eliminating vegetation along highways.	Jan '42 p28
Roadside spray proportioner, proper use of demonstrated.	N/D '65 p28
Viagraph (road surface meter), newly designed model, 1939.	D '39 p12+
Viagraph designed by L.A. Road Dept.; Viagraphe-Traceur used in France.	J/F '60 p49
Volumeter in use.	Mar '38 p14
C.N. Wilzek, designer, operating Volumeter.	Mar '38 p14
Close-up of Volumeter showing the design of its construction.	Mar '38 p15
Water load counter designed for installation on water trucks.	N/D '62 p30
World War II conservation efforts	1
Power shovels transported to Sacramento Hwy. Shops by freight car for	
extensive repairs, replacement, and overhauling.	S/O '43 p8
Adding new metal to worn crankshaft with metalizing machine.	S/O '43 p9
Sharpening scarifier discs by cutting new edges.	S/O '43 p9
Repairing heavy-duty Hesselman oil engine of power shovel.	S/O '43 p9
Forging steel bar with power hammer.	S/O '43 p9
Large oil heating retort on trailer constructed of salvaged materials.	S/O '43 p10
1,100-gallon road oil distributor built with used parts from other units.	S/O '43 p10
, 8	- F
EROSION CONTROLSee also EQUIPMENT, Erosion-related	
Bank Protection	
Bank protected by sand bar formed downstream from steel tetrahedron jetty	L-1 (20 7
on Santa Clara Rvr., Ventura Co.	Jul '39 p7
Bar formed below tetrahedron jetty.	Aug '38 p11
Cable connected jackstraws used to stop bank erosion.	Aug '38 p11
Concrete crib members being made at camp between Junction City and Helena.	Mar '41 p11
Concrete riprap bank protection (US 50)	
Bags being filled at concrete mixing machine for placement on Cache	T (40 20
Creek embankment.	Jan '40 p20
Close-up of concrete riprap bags at Cache Creek.	Jan '40 p20
Filled bags of concrete being delivered by chute.	Jan '40 p21

EROSION CONTROL Bank Protection, Continued

Deflectors	
Deflectors 11 27 in 11	N. 6.4.1 . 4
Deflector construction with 27 in. redwood logs.	May '41 p4
Floodwater damaged section of US 101 on Eel River, Humboldt Co.	3.6 (41 0
where deflectors have been laced to protect bank.	May '41 p2
Riprap section that withstood flood currents.	May '41 p3
Triangular timber deflectors protecting banks and redwood tree groups.	May '41 p3
Portland cement concrete revetment along Santa Clara Rvr., Ventura Co.	May '42 p13
Reinforced asphalt concrete channel lining near Fillmore, Ventura Co.	Jul '39 p8
Reinforced concrete channel lining on Santa Clara River near Saugus in L.A. Co.	Aug '38 p12
Rock riprap and wire mattress protection of left bank of Eel River below Dyerville.	Jan '43 p4
Left bank of Eel Rvr. showing extent of erosion since 1939.	Jan '43 p5
High bank of alluvial silt cut to steep slope.	Jan '43 p5
Sacked concrete in use 10 years on Van Duzen Rvr., Humboldt Co.	Jul '39 p8
Sacked concrete revetment on Grizzly Cr., Lake Co.	Jul '39 p8
Sacked concrete revetment on Russian Rvr., Mendocino Co.	Jul '39 p7
Sacked concrete revetment with wire mesh and rock toe mattress, Eel Rvr.	Jul '39 p7
Sacked concrete riprap along Santa Clara Rvr., Ventura Co.	May '42 p12
Sacked concrete slope paving placed on banks of Trinity River for	3.5 (44 0
protection at flood stages.	Mar '41 p9
Steel rail and cable, and rock fill double fence bank protection.	May '42 p14
Steel rail and wire fence backfilled with rock and brush.	Aug '38 p11
Steel rail tetrahedrons and sacked concrete riprap along Santa Clara Rvr.	May '42 p13
Steel rail tetrahedrons on Salinas Rvr., Monterey Co.	Jul '39 p7
Toe of gunite facing protected by conformance of articulated concrete block	T 1 (20 0
apron, Pacoima Cr. L.A. Co.	Jul '39 p9
Precast cribbing protection on Trinity River.	Mar '41 p11
Toe rock excavation, Punta Gorda project.	J/F '55 p37
Lima 803 crane placing rock backing in riprap section.	J/F '55 p38
Crane placing toe rock behind sand dike.	J/F '55 p38
Redwood crib on Trinity River with men standing next to it to show size.	Jul '37 p22
River bed and road above where erosion occurred.	Jul '37 p22
Wire and rock mattress, strips of being placed in riverbed at foot of riprap	3.5 (41 0
protected slope (Trinity River).	Mar '41 p8
Wire mesh and rock mattress.	Aug '38 p11
Wire mesh revetment on Cow Cr. in Shasta Co.	Jul '39 p8
DRAINAGE	
Angels Crest Hwy. (Rt. 2) drainage features (L. A. Co.)	. (20 21
Grouted rock channel entrance to paved spillway.	Apr '39 p21
Paved spillway and planted slopes.	Apr '39 p21
Spillway paved with concrete blocks.	Apr '39 p21
Terrain with spillway entrances in foreground.	Apr '39 p21
Wattle spacing, an early experiment in.	N/D '49 p40
Concrete check dams on Bradley-King City highway along creek channel to	3.5/3.6424
prevent excessive erosion in canyon section. (Monterey Co.).	M/A '43 p4
Concrete check dams retard velocity of runoff water on steep grade.	J/F '50 p40
Drainage channel flanking Rt. 126 Fwy. in Ventura Co.	S/O '62 p44
Drilling crews sample subsurface materials for foundation exploration.	N/D '65 p25
Measuring weight and volume of material removed from excavated hole.	N/D '65 p25
Drilling operations to obtain soil for testing purposes.	N/D '60 p23
Glen Annie Cr. channel change near Goleta, part of US 101 project.	M/J '62 p38

EROSION CONTROL Drainage, Continued

L	1051011 CONTROL Diamage, Continued	
	Grapevine Canyon (I-5) drainage system	
	Flume paralleling highway for carrying creek waters past slide area.	Mar '42 p15
	Work on reinforced concrete lining of flume.	Mar '42 p15
	Special spillway constructed at flume's lower end.	Mar '42 p15
	Horizontal drain, and boring being made for another drain.	J/F '58 p20
	Horizontal drain near Whitmore slide area (I-80).	N/D '65 p27
	Humboldt Co.; digging drainage ditch in Bar at Big Lagoon, 1920s.	J/A '64 p29
	Hydraulic dredger used on Eastshore Fwy. fill (Alameda Co.)	0/11 0 : p2)
	Levee on Bay Farm Island, trestle for dredger pipe.	J/F '48 p36
	Damon Slough, completion of first link of hydraulic fill.	J/F '48 p37
	Elmhurst Creek, outlet of dredger pipe.	J/F '48 p38
	Hydraulic structure model as constructed for first trials.	N/D '44p16
	Same structure dimensions as in Fig 1.	N/D '44p16
	Final revision of model on which design of prototype was based.	N/D '44p16
	Same dissipating basin dimensions as Fig. 3.	N/D '44p16
	Intercepting ditches.	J/F '50 p38
	Cut brush placed in eroded drainage ditch arrests active erosion.	J/F '50 p39
	Intercepting drain ditches at top of slope in need of vegetation protection.	May '42 p10
	I-5 drainage canal, Mendota	
	Aerial view of prototype test canal south of Mendota.	M/A '66 p41
	Failure of earth-lined section in noncompacted portion of prototype test canal.	M/A '66 p41
	Failure of concrete lining and embankment in noncompacted portion after	
	inundation of prototype test canal for 90 days.	M/A '66 p41
	Poorly installed down drain.	May '42 p10
	Property adjacent to eroded highway drainage ditch affected by debris.	N/D '49 p39
	Reclamation district drainage canal passing under Sherman Dr. overcrossing	•
	on Salinas Fwy., Monterey Co.	M/A '54 p38
	Sacramento freeway network, area served by drainage system	J/A '65 p26
	Grating in place for deck drain on I-80 viaduct, Sacramento.	J/A '65 p23
	San Bernardino Co.	., vv _P =0
	Bell Mt. Wash Br. drainage facility on Victorville-Barstow Fwy. (I-15).	S/O '58 p45
	San Diego Fwy. near Mulholland Dr. drainage facility under construction.	J/F '62 p49
	Sand drains used for soil stabilization.	S/O '61 p74
	Sand volume test used in checking compaction qualities on a highway	5/O 01 p/4
	construction project.	N/D '60 p24
	Santa Clara Co., Rt. 17	N/D 00 p24
		I (20 m.5
	Portion of huge drainage system for new road.	Jun '38 p5
	Drain being laid under subgrade.	Apr '37 p3
	Excavation in rock formation for installation of side drainage.	Apr '37 p3
	Extensive deep trenching for rock filling in drainage system made necessary	
	to insure stability of big fill on realignment in Santa Cruz Mts.	O '38 p4
	Siskiyou Co.	
	Typical horizontal drain installation.	J/A '60 p18
	Typical bin wall used along Sacramento Rvr. Canyon section of freeway.	J/A '60 p18
	Typical stabilization trench.	J/A '60 p19
	Spillway checks built in channel bottom for I-5 freeway project.	J/F '65 p39
	Storm drain construction (San Diego Co.).	M/J '53 p13

EROSION CONTROL, Continued	
Embankment Stabilization	
Combination drill rig during exploration of foundation for proposed heavy	
embankment.	M/A '49 p60
Drill rig making foundation borings for proposed 120-ft. high embankment.	M/A '49 p60
Ridgewood grade (US 101, Mendocino Co.) settlement platform.	N/D '53 p11
Slab trench showing pipe in place.	N/D '53 p10
Slope stabilization using tie-down method (Rt. 24, Contra Costa Co.).	M/J '60 p30
Terminal Island, L.A. Co.	
Outer and inner casing with jets in operation; loading sand in outer casing.	J/A '46 p9
Preparing to pull inner jet casing from outer casing.	J/A '46 p9
Placing end in outer casing from sand hopper.	J/A '46 p10
Jetting casing into position; Removing inner jet casing from outer fill.	J/A '46 p10
Removing outer casing and backfilling with sand.	J/A '46 p10
Highly erosive soil near Salinas.	N/D '49 p37
Jetties	
Alamitos Bay jetty.	S/O '44 p14
West jetty of San Gabriel River, Alamitos Bay jetty in distance.	S/O '44 p16
Jetty installation just upstream from Shively Bluff, Humboldt Co.	N/D '45 p21
Permeable pile jetties built in 1944 at Dyerville.	N/D '45 p23
Sonoma Co.; part of old jetty remaining at mouth of Russian River.	O '40 p23
Waves destroying construction of trestle; River mouth almost closed by sand.	O '40 p23
Rock and concrete jetty at Jenner keeps open Russian River channel to ocean.	S '41 p17
San Bernadino Co.; erosion control on City Creek Rd.	•
Grain and Baccharis six months after planting.	S/O '48 p32+
Growth made by Baccharis viminea four months after planting as cuttings.	M/A '50 p37
Storm damage and	•
Army cots in place prior to placing a course of chicken wire followed by	
succeeding layers of embankment.	J/F '50 p46
Damage on fill slope seeded to barley.	N/D '49 p41
Exposed edges of horizontal mats proves value of straw cover as secondary	•
protection; After the storm the contractor threw up a temporary dikes.	J/F '50 p46
Fill that suffered minor gullying stopped by horizontal mats.	J/F '50 p4
Heavy rain was absorbed by the straw-protected surface until it became	•
semi-liquid and flowed in streaks, or slipped in mass, down the slopes.	J/F '50 p48
Protected slopes properly dyked on top showed no failure after storm.	J/F '50 p46
Vegetative cover taking over on a 1 1/2 year-old fill	J/F '50 p46
Vegetative erosion protection a year and a half after planting.	S/O '48 p32
Vegetative erosion protection, five months old.	S/O '48 p32
Slides & Slipouts	1
Contra Costa Co., Rt. 24; Orinda slide area, aerial view.	J/F '52 p45
Drain at roadway level installed at Orinda slide location.	J/F '52 p50
Slide after excavation.	J/F '52 p51
Drains connected to collecting pipe in interceptor trench.	J/F '52 p52
Collecting pipe and drains on lower bench.	J/F '52 p52
Hazard and extent of typical slipout.	Jul '41 p10
Large slipout [location unknown].	M/A '49 p62
Los Angeles Co.	1
Grapevine Canyon (I-5) [US 99, Rt. 4]	
Proposed fill construction and highway widening.	F '41 p19
Cracked and sliding hillside; Truck units pulling around slide.	F '41 p19
Hydrauger in drilling position at Grapevine slide.	J/F '48 p7
	1

EROSION CONTROL, Continued	
Pacific Palisades, Santa Monica	
Completed section of slide prevention work near Santa Monica where	
retaining wall prevents slides from blocking Coast Hwy.	May '40 p13
Clearing summit of palisades of dangerous slide material.	May '40 p14
Landslide along Pacific Palisades.	J/F '57 p56
Slide area of Pacific Palisades near Santa Monica, 1940.	J/A '60 p54
Slide in progress south of Topanga.	Jul '41 p10
Slipout on Ridge Route Alt., I-5 [US 99].	Jul '41 p3
Mendocino Co.; rock slide in road near Leggett, 1948.	J/A '64 p24
Bulldozer attempting to clear slide which blocked Long Valley Cr.	J/A 04 p24
	N/D '61 n25
and caused flooding on US 101 in Mendocino Co.	N/D '61 p25
Monterey Co.; Lucia slide area, Rt. 1; Re-establishing road at base of slide.	N/D '52 p56
Placer Co.; slide on I-80 [US 40] near Baxter.	N/D '60 p19
Road closed by slide occurring during construction.	M/A '49 p64
San Bernardino Co.	7/77 / 40 0
Drilling slide at Camp Cajon with hydrauger.	J/F '48 p9
Slipout prevention with iron pipe stakes and fencing,	N/D '49 p39
San Diego Co.; slide area on US 101 near Encinitas.	M/J '60 p31
Emergency bulkheading installed by state maintenance forces prior to	
undertaking erosion control operations.	M/J '60 p32
San Luis Obispo Co.; two units drilling at Cuesta Grade.	J/F '48 p8
Santa Clara Co., Rt. 17 (Los Gatos-Santa Cruz Hwy.)	
Large slipout of fill and installation of extensive drainage system.	D '41 p5
Last stages of fill restoration at slipout on new highway.	D '41 p3
Outlets of 2-in. perforated pipe drains.	D '41 p5
Repair of slipout at junction of old and new highways near Santa Cruz.	D '41 p4
Typical 2-in drains with 6-in. collection pipes.	D '41 p6
Siskiyou Co. (I-5) [US 99]	Γ.
Slide removal operations near Panorama Undercrossing.	J/A '60 p15
Slide removal operation on Castella section adjacent to "Big Fill" area.	J/A '60 p17
Clearing operation on slide at Castle Creek.	J/A '60 p17
Typical slide conditions encountered in Sacramento Rvr. Canyon.	J/A '60 p18
Sonoma Co.	3/11 00 p10
Flow from horizontal drain in Cloverdale slide.	J/F '48 p10
Slide which closed Rt. 1 between Jenner and Ft. Ross, aerial view.	M/J '54 p16
Fort Ross, and Coast Hwy. leading to Jenner.	M/J '54 p17
Rugged terrain between Jenner and Ft. Ross.	M/J '54 p17
Volume and force developed by circular type slide, such as this at Kellogg Hills.	Jul '41 p2
Slope cuts and fills, erosion control and	I/E (50 24
Active erosion on steep cut slopes.	J/F '50 p34
Blanketing a sandy slope with top soil spread from above with tractor equipment.	Aug '39 p19
Board-faced, undrained terraces on a cut slope, subject to undermining.	J/F '50 p35
Brush layer in place ready for a covering of soil, which is then compacted.	J/F '50 p36
Brush placed in gullies before backfill material is spread on slope face.	J/A '50 p37
Cut slopes blanketed with 6 inches of top soil.	S '41 p14
Cut slops stabilized with top soil, rye grass and straw.	May '42 p11
Cut slopes with transition at ends of cuts and protected with top soil.	S '41 p14
Damage caused by runoff water from adjacent property.	M/A '50 p41
Dicing cut slope prior to spreading top soil.	J/A '44 p7
Erosion caused by high-intensity storm during construction on untreated cut	
slope near Watsonville; Successfully stabilized cut slopes one year later.	N/D '49 p36
Erosion gullies formed on a top soiled cut slope.	May '42 p8

EROSION CONTROL, Continued	
Extensive cut and fill area exposed to erosive forces by construction of high	
standard mountain road (Santa Barbara Co.).	N/D '49 p39
Failure of side of main fill on Rt. 37 [Rt. 48], Solano Co.	S/O '61 p77
Fill slopes composed of disintegrated granite material after high-intensity rains	
Fill slope protected by wattle method.	May '42 p9
Gravel slope on which erosion was prevented by top soil cover damaged	
by pedestrians climbing up and down.	S '41 p14
Ground cover plantings, unsatisfactory protection when planted on sterile slope	
Gullies formed in a topsoiled slope by successive rains.	M/A '50 p40
Gullies on topsoil cut slope caused by runoff from adjacent property.	M/J '50 p34
Hard, gullied disintegrated granite fill slopes.	J/A '50 p34
Horizontal drains being installed to complete stabilization treatment of large cu	
Ice plant protecting this previously badly eroded slope in Solomon Canyon.	Aug '39 p18
Loss of top soil caused by first rain.	May '42 p9
Lumps or granular particles can not be expected to stick smooth surface.	S '41 p15
Nature's way of completely stabilized slope.	J/A '50 p39
New cut slopes on Arroyo Seco Pkwy. are seeded immediately to get a	
coverage protection against erosion by early rains.	Aug '39 p18
Oiling, an artificial means of erosion control.	S '41 p14
One rain, the first of the season, produced this extensive bank erosion.	Aug '39 p18
Planting and cultivating extensive right-of-way with ice plant to prevent erosic	
Protective cover produced on sandy slope by seeded, thin top soil blanket.	Aug '39 p19
Raking top soil down cut; Raking top soil down unconsolidated sand cut.	D '42 p3
Result of 3 days rain on newly treated slopes.	May '42 p8
Reworking fill slope face with bulldozer and installing brush layers.	J/A '50 p37
San Diego Co.	
Eroded, untreated excavation slope near Carlsbad.	M/J '52 p22
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment.	M/J '52 p23
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage.	M/J '52 p23 M/J '52 p24
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm	M/J '52 p23 M/J '52 p24 m. M/J '52 p23
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storr Soil loss on recently topsoiled slope at Oceanside, after storm.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p22
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storr Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p22 J/F '50 p34
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storn Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p37
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p37 J/F '50 p36
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope. Stages of erosion prevention work on cut slope untreated slope after rain.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p37 J/F '50 p36 J/A '44 p7
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope. Stages of erosion prevention work on cut slope untreated slope after rain. Thick uncompacted topsoil blanket slips from slope when saturated.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p37 J/F '50 p36 J/A '44 p7 J/F '50 p35
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope. Stages of erosion prevention work on cut slope untreated slope after rain. Thick uncompacted topsoil blanket slips from slope when saturated. Typical erosion on slope cuts during construction.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p37 J/F '50 p36 J/A '44 p7 J/F '50 p35 May '42 p11
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope. Stages of erosion prevention work on cut slope untreated slope after rain. Thick uncompacted topsoil blanket slips from slope when saturated. Typical erosion on slope cuts during construction. Unsuccessful barriers to retard the flow of water.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p37 J/F '50 p36 J/A '44 p7 J/F '50 p35
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope. Stages of erosion prevention work on cut slope untreated slope after rain. Thick uncompacted topsoil blanket slips from slope when saturated. Typical erosion on slope cuts during construction. Unsuccessful barriers to retard the flow of water. Stabilization	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p37 J/F '50 p36 J/A '44 p7 J/F '50 p35 May '42 p11 May '42 p10
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope. Stages of erosion prevention work on cut slope untreated slope after rain. Thick uncompacted topsoil blanket slips from slope when saturated. Typical erosion on slope cuts during construction. Unsuccessful barriers to retard the flow of water. Stabilization Type A stabilization during construction of 7th St. interchange, Santa Ana Fwy	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p37 J/F '50 p36 J/A '44 p7 J/F '50 p35 May '42 p11 May '42 p10 y. M/J '50 p34
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope. Stages of erosion prevention work on cut slope untreated slope after rain. Thick uncompacted topsoil blanket slips from slope when saturated. Typical erosion on slope cuts during construction. Unsuccessful barriers to retard the flow of water. Stabilization Type A stabilization during construction of 7th St. interchange, Santa Ana Fwy Established ground cover planting on Type A stabilized cut slopes.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p37 J/F '50 p36 J/A '44 p7 J/F '50 p35 May '42 p11 May '42 p10 y. M/J '50 p34 M/J '50 p34
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope. Stages of erosion prevention work on cut slope untreated slope after rain. Thick uncompacted topsoil blanket slips from slope when saturated. Typical erosion on slope cuts during construction. Unsuccessful barriers to retard the flow of water. Stabilization Type A stabilization during construction of 7th St. interchange, Santa Ana Fwy Established ground cover planting on Type A stabilized cut slopes. Type B stabilization treatment ready for ground cover planting.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p37 J/F '50 p36 J/A '44 p7 J/F '50 p35 May '42 p11 May '42 p10 y. M/J '50 p34 M/J '50 p34 M/J '50 p36
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope. Stages of erosion prevention work on cut slope untreated slope after rain. Thick uncompacted topsoil blanket slips from slope when saturated. Typical erosion on slope cuts during construction. Unsuccessful barriers to retard the flow of water. Stabilization Type A stabilization during construction of 7th St. interchange, Santa Ana Fwy Established ground cover planting on Type A stabilized cut slopes. Type B stabilization treatment ready for ground cover planting. Well roughened cut slope ready to be topsoiled.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p36 J/A '44 p7 J/F '50 p35 May '42 p11 May '42 p10 y. M/J '50 p34 M/J '50 p36 M/J '50 p36 M/J '50 p36
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope. Stages of erosion prevention work on cut slope untreated slope after rain. Thick uncompacted topsoil blanket slips from slope when saturated. Typical erosion on slope cuts during construction. Unsuccessful barriers to retard the flow of water. Stabilization Type A stabilization during construction of 7th St. interchange, Santa Ana Fwy Established ground cover planting on Type A stabilized cut slopes. Type B stabilization treatment ready for ground cover planting. Well roughened cut slope ready to be topsoiled. Spreading and smoothing topsoil on a roughened slope.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p36 J/A '44 p7 J/F '50 p35 May '42 p11 May '42 p10 y. M/J '50 p34 M/J '50 p36 M/J '50 p36 M/J '50 p36 M/J '50 p36
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm. Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope. Stages of erosion prevention work on cut slope untreated slope after rain. Thick uncompacted topsoil blanket slips from slope when saturated. Typical erosion on slope cuts during construction. Unsuccessful barriers to retard the flow of water. Stabilization Type A stabilization during construction of 7th St. interchange, Santa Ana Fwy Established ground cover planting on Type A stabilized cut slopes. Type B stabilization treatment ready for ground cover planting. Well roughened cut slope ready to be topsoiled. Spreading and smoothing topsoil on a roughened slope. Spreading straw on newly topsoiled slope.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p36 J/A '44 p7 J/F '50 p35 May '42 p11 May '42 p10 y. M/J '50 p34 M/J '50 p36 M/J '50 p37
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope. Stages of erosion prevention work on cut slope untreated slope after rain. Thick uncompacted topsoil blanket slips from slope when saturated. Typical erosion on slope cuts during construction. Unsuccessful barriers to retard the flow of water. Stabilization Type A stabilization during construction of 7th St. interchange, Santa Ana Fwy Established ground cover planting on Type A stabilized cut slopes. Type B stabilization treatment ready for ground cover planting. Well roughened cut slope ready to be topsoiled. Spreading and smoothing topsoil on a roughened slope. Spreading straw on newly topsoiled slope. Brush layers and wire reinforced brush mats installed in a fill during construction.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p36 J/A '44 p7 J/F '50 p35 May '42 p11 May '42 p10 y. M/J '50 p34 M/J '50 p36 M/J '50 p36 M/J '50 p36 M/J '50 p36 M/J '50 p37 ion. M/J '50 p37
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope. Stages of erosion prevention work on cut slope untreated slope after rain. Thick uncompacted topsoil blanket slips from slope when saturated. Typical erosion on slope cuts during construction. Unsuccessful barriers to retard the flow of water. Stabilization Type A stabilization during construction of 7th St. interchange, Santa Ana Fwy Established ground cover planting on Type A stabilized cut slopes. Type B stabilization treatment ready for ground cover planting. Well roughened cut slope ready to be topsoiled. Spreading and smoothing topsoil on a roughened slope. Spreading straw on newly topsoiled slope. Brush layers and wire reinforced brush mats installed in a fill during construction spreading straw and rolling cut slope with cable-controller sheepsfoot roller.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p36 J/A '44 p7 J/F '50 p35 May '42 p11 May '42 p10 y. M/J '50 p34 M/J '50 p36 M/J '50 p36 M/J '50 p36 M/J '50 p36 M/J '50 p37 ion. M/J '50 p37
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope. Stages of erosion prevention work on cut slope untreated slope after rain. Thick uncompacted topsoil blanket slips from slope when saturated. Typical erosion on slope cuts during construction. Unsuccessful barriers to retard the flow of water. Stabilization Type A stabilization during construction of 7th St. interchange, Santa Ana Fwy Established ground cover planting on Type A stabilized cut slopes. Type B stabilization treatment ready for ground cover planting. Well roughened cut slope ready to be topsoiled. Spreading and smoothing topsoil on a roughened slope. Spreading straw on newly topsoiled slope. Brush layers and wire reinforced brush mats installed in a fill during construction spreading straw and rolling cut slope with cable-controller sheepsfoot roller. Rolling 10-ft. strip of fill slope after application of straw.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p36 J/A '44 p7 J/F '50 p35 May '42 p11 May '42 p10 y. M/J '50 p34 M/J '50 p36 M/J '50 p36 M/J '50 p36 M/J '50 p37 ion. M/J '50 p37 M/J '50 p37
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm. Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope. Stages of erosion prevention work on cut slope untreated slope after rain. Thick uncompacted topsoil blanket slips from slope when saturated. Typical erosion on slope cuts during construction. Unsuccessful barriers to retard the flow of water. Stabilization Type A stabilization during construction of 7th St. interchange, Santa Ana Fwy Established ground cover planting on Type A stabilized cut slopes. Type B stabilization treatment ready for ground cover planting. Well roughened cut slope ready to be topsoiled. Spreading and smoothing topsoil on a roughened slope. Spreading straw on newly topsoiled slope. Brush layers and wire reinforced brush mats installed in a fill during construction spreading straw and rolling cut slope with cable-controller sheepsfoot roller. Rolling 10-ft. strip of fill slope after application of straw. Surface slippage due to saturation.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p36 J/A '44 p7 J/F '50 p35 May '42 p11 May '42 p10 y. M/J '50 p34 M/J '50 p36 M/J '50 p36 M/J '50 p36 M/J '50 p36 M/J '50 p37 ion. M/J '50 p37
Eroded, untreated excavation slope near Carlsbad. Oceanside slope after clean-up, restoration, and treatment. Protected bank near Carlsbad withstood Jan. 18 storm with-out damage. Soil loss on grounded slope above old road at Oceanside after Jan 18 storm Soil loss on recently topsoiled slope at Oceanside, after storm. Sandy cut slope near stabilized with spray of asphalt. Sandy, erodable slope left in good condition to retain top soil protection cover. Small gullies caused by runoff water from the pavement. Soil loss after a high-intensity storm on an un-treated fill slope. Stages of erosion prevention work on cut slope untreated slope after rain. Thick uncompacted topsoil blanket slips from slope when saturated. Typical erosion on slope cuts during construction. Unsuccessful barriers to retard the flow of water. Stabilization Type A stabilization during construction of 7th St. interchange, Santa Ana Fwy Established ground cover planting on Type A stabilized cut slopes. Type B stabilization treatment ready for ground cover planting. Well roughened cut slope ready to be topsoiled. Spreading and smoothing topsoil on a roughened slope. Spreading straw on newly topsoiled slope. Brush layers and wire reinforced brush mats installed in a fill during construction spreading straw and rolling cut slope with cable-controller sheepsfoot roller. Rolling 10-ft. strip of fill slope after application of straw.	M/J '52 p23 M/J '52 p24 m. M/J '52 p23 M/J '52 p23 M/J '52 p22 J/F '50 p34 S '41 p14 J/F '50 p36 J/A '44 p7 J/F '50 p35 May '42 p11 May '42 p10 y. M/J '50 p34 M/J '50 p36 M/J '50 p36 M/J '50 p36 M/J '50 p37 ion. M/J '50 p37 M/J '50 p37

EKOSION CONTROL, Continued	
Straw as erosion control	
Close-up of strawing operation.	D '42 p2
Planting ice plant cuttings through straw along top and bottom of slope.	J/A '44 p8
Punching straw with sheepsfoot roller cabled between two tractors.	J/A '44 p8
Race track where straw is acquired; Loading straw at stables.	S/O '48 p31
Roller drawn up and down slopes incorporates straw in embankment surface.	J/F '50 p47
Rolling first application of straw with truck crane and tamping roller.	S/O '48 p31
Rolling straw-covered slope with a sheepsfoot roller.	J/F '50 p36
Rye grass and barley crop growing through straw mulch.	J/A '44 p8
Seed being sowed on fill slope before straw is applied.	D '42 p2
Spreading straw over top soiled slope to provide a mulch.	J/A '44 p7
Straw-covered, topsoiled cut slope after compaction with a sheepsfoot roller.	J/F '50 p35
Vegetation as erosion control	1
Barley and weeds growing on stabilized slope.	M/A '50 p35
Eroded slopes covered with natural vegetation in Humboldt Co.	N/D '49 p38
Naturally stabilized slope.	N/D '49 p38
Planting small Eucalyptus rostrata in plant band.	M/A '50 p37
Growth obtained 28 months after planting (Riverside Co.).	M/A '50 p37
Un-vegetative drainage ditch, a potential threat to roadway.	J/F '50 p37
Vegetative protection in a dividing strip on an approximate 5% grade.	J/F '50 p37
Well-vegetated cut slope (Santa Cruz Co.).	M/A '50 p36
Willows planted in moist areas assist in stabilization (Santa Cruz Co.).	M/A '50 p36
Water erosion, various protective services against.	J/A '61 p70
Wind erosion	
Wind erosion affects both the sandy cut slope and the traveled way.	M/A '50 p34
Rock placed on sandy cut slope-face controls wind erosion in desert area.	M/A '50 p34
Sandy slope completely stabilized with cut brush and European beach grass.	M/A '50 p35
European beach grass interplanted with Italian Ryegrass controls wind erosion	1
on sandy slope.	M/A '50 p35
• •	•
EVENTS	
AASHO annual meetings	
32nd annual	
L.A. Mayor Fletcher Bowron welcoming delegates.	Jan '47 p2
Retiring president M. J. Hoffman and Thomas H. MacDonald (CHC).	Jan '47 p3
Director of PW C.H. Purcell extending greetings from Gov. Warren.	Jan '47 p4
Newly elected officers of AASH0, 1946.	Jan '47 p14
Retiring president Hoffman presenting gavel to his successor.	Jan '47 p15
Business session of AASHO meeting.	Jan '47 p13
Engineer Geo. T .McCoy presenting M. J. Hoffman with gold watch.	Jan '47 p23
Delegates from Puerto Rico and Hawaii.	Jan '47 p23
Radio communication exhibit room, California Division of Hwys.	Jan '47 p24 Jan '47 p21
Fred F. Grumm using equipment at radio communication headquarters.	Jan '47 p30
	•
AASHO Women's Committee and Entertainment Committee, 1946.	Jan '47 p15
Delegates at 32nd annual meeting of AASHO. Retiring president Carl W. Brown presenting award of merit to Fred J. Grumm.	Jan '47 C, BC N/D '49 p45
· · ·	J/F '59 p20
44th annual; T.F. Bagshaw welcoming delegates.	J/F '59 p20 J/F '59 p20
Delegates touring newly opened Carquinez Br.; Opening session.	J/F 39 p20
California State Fair promotions. Aug '40 p25; Aug '41 p21;	
J/A '47 p17; J/A '49 p35; J/A '50 p25; J/A '51 p28; J/A '52 p52;	I/A '57 x20
J/A '53 p25; J/A '54 p35; J/A '55 p43; J/A '56 p69;	J/A '57 p39

EVENTS, Continued

EVENTS, Continued	
Festival of Arts (Laguna Beach)	
Irvine Bowl open air theater at Laguna Beach during Pageant of Masters.	S/O '52 p8
Live models pose for reproductions of Da Vinci's "The Last Supper"	S/O '52 p9
Artists pose for "Shepherds of Arcadia," by Nicolas Poussin.	S/O '52 p9
Models faithfully bring to life "Marcellus and the Princess by Dean Cornwell.	S/O '52 p10
Artists as "Lot and his Family leaving Sodom" by Rubens.	S/O '52 p11
Gem and Mineral Show, exhibits at.	N/D '53 P43
Sacramento Mineral Society presenting Gov. Knight with gem from show.	N/D '53 p43
Golden Gate International Exposition (Worlds Fair), Treasure Island	1
Autos waiting for the gates to open early on first day of exposition.	Jun '41 p21
Aerial view of Treasure Island.	Jun '40 C, p21
Approaching fair buildings from state-built ramp approach.	Jun '40 p21
Governor's Conference on California 's Urban Area and the State Highway System.	M/A '60 p2
Grand National Livestock Expo (Cow Palace, S.F.)	1
Coraleen Jurian, former queen of Grand National Livestock Expo, pointing to	
remodeled "Cow Palace" lettering.	S/O '53 p37
Cowboy star Rex Allen and his horse Koko.	S/O '54 p42
Members of the "Riders of the Andes" Chilean equestrian team.	S/O '55 p32
Interior of Cow Palace during performance of horse show and rodeo.	J/A '52 p48
Group of Royal Canadian Mounted Police.	J/A '52 p49
Western Trail Riders rehearsing for a performance.	S/O '53 p37
Highway Communications meeting delegates.	J/A '65 p47
Highway Transportation Congress in Washington DC, speakers' panel.	M/J '54 p19
International Road Congress (Mazatlan Mexico).	
Deputy Director of PW Edward J. Neron at Speakers Table.	Apr '37 p25
ITTE 17th annual Streets and Highways Conference participants.	M/A '65 p54
Los Angeles Co. Fair (Pomona)	1
Aerial view of 450-acre exposition park.	J/A '56 p38
Sight-seeing train and grandstand on main promenade of L.A. Co. Fair.	J/A '56 p38
National Boy Scout Jamboree, Boy Scouts assembling for arena show.	S/O '53 p39
National Highway Users Conference	1
Roy Johnson, Engineering Council, and Joseph E. Havenner, Auto Club of So.	
California, Chairman of Conference.	M/A '52 p37
Pike Johnson, President of Auto. Safety Foundation, and Dean L. Boelter,	1
College of Engineering, UCLA.	M/A '52 p38
R.A. Moyer, Research Engineer ITTE, UC, and Earl Withycombe.	M/A '52 p39
National Highway Week	1
Luncheon-meeting, 1962.	M/J '62 i.cvr.
Busses and cars used to transport tour participants.	M/J '62 i.cvr.
Dist. 8 design engineer Carlos Apablasa being interviewed by Spanish	
television station during National Hwy. Week.	J/A '63 p43
Olympics, Winter 1960	M/A '60 i.cvr
Traffic moving from Rt. 89 into Squaw Valley during Olympics.	M/A '60 i.cvr.
Navy roller towed by small tractor at compacted-snow access road.	M/A '60 p35
Parking lot at Squaw Valley.	M/A '60 p36+
Main Olympic Games area.	M/A '60 p38
Redwood Empire Assoc. annual convention	1
Newly elected 1956-57 Executive Board of Redwood Empire Assoc.	N/D '56 p21
President and retiring president of Redwood Empire Assoc.	N/D '56 p21
Safety Engineers Conference delegates.	S/O '65 p54
	-

EVENTS, Continued

EVEN18, Continued	
Visitors to State	
Brazil; Brazilian engineers looking over model of a structure during visit.	J/F '65 p62
Brazil's PW Secretary	J/A '56 p65
Canada; Members of Parliament, Ontario on visit to Headquarters.	M/J '61 p22
France; French engineers at Santa Monica-San Diego Fwy. interchange.	J/F '65 p62
German construction delegation and guides on tour of L.A. freeways.	M/A '57 p49
Great Britain; Director of Road Research on visit to U.S., 1961.	S/O '61 p69
British Minister of Transport with E. T. Telford.	M/A '60 p65
British municipal traffic engineers on bus tour of L.A. freeways.	J/A '60 p68
Minister of Transport on visit to California.	M/J '64 p64
India; Engineer from Jamshedpur with E. T. Telford.	J/F '60 p57
Japan; Japanese bridge engineers on tour of L.A. district.	S/O '59 p50
Japanese engineers and highway officials on visit to Headquarters office.	M/J '65 p63
Japanese engineers and officials on visit to Four-level structure, L. A.	J/F '60 p58
Japanese officials with Asst. Chief Right-of-way Agent E.M. McDonald.	S/O '58 p34
Philippines; Philippine civil engineer with Deputy State Engineer C.E Waite.	J/A '60 p68
South America; Concul General of Nicaragua, former president of Costa Rica,	3/A 00 p00
	NI 440 11
and Consul General of Costa Rica.	N '40 p11
Switzerland; Swiss engineer viewing map of the L.A. Freeway System.	J/F '60 p57
U.S. House PW Committee N/D '57 p3;	J/F '62 p2
WASHO (Western State Highway Officials) conventions	
Delegates at annual meeting, 1939.	Apr '39 p15
30th annual meeting	
Gov. Warren congratulating convention manager George S. Pingry.	J/A '51 p42
Delegates assembled for first day's session.	J/A '51 p32+
WASHO president Anderson and family.	J/A '51 p34
Gov. Warren, US Commissioner. of Roads McDonald, and C.H. Purcell.	J/A '51 p35
Gov. Warren addressing WASHO convention.	J/A '51 p36
Hal H. Hale, Secretary of AASHO.	J/A '51 p38
A.M. Nash, WASHO Vice President.	J/A '51 p46
Newly elected WASHO officers, group photo.	J/A '51 p53
43rd annual; delegates at opening general session.	J/A '64 p18
Past president W. Otis Wright swearing in new officers.	J/A '64 p20
Western Regional Conference on Increasing Hwy. Engineering Productivity.	M/A '57 p35
World's Fair 1939-40See Golden Gate International Exposition	
······································	
FERRIES	
	M/I 470 10
Cache Slough Ferry. S/O '45 p26;	M/J '52 p13
New Ferry in operation midstream.	S/O '45 p26
Carquinez ferry serving Benicia-Martinez traffic.	M/J '60 i.cvr.
The ferry "Carquinez" making one of its last runs across Carquinez strait.	S/O '62 p5
Coronado Ferry, San Diego skyline and.	M/J '66 p20
Navy's North Island as seen from Coronado Ferry landing.	M/J '66 p20
Dungan's Ferry across lower Eel Rvr. between Ferndale and Loleta, ca. 1855.	M/J '64 p7
Gualala River cable ferry, ca. 1890-1894.	M/A '59 p19
Klamath River Ferry at Requa, 1925.	J/A '64 p31
Martinez-Benicia Ferry authorized by Legislature to be transferred to cities.	D '40 p13
Real McCoy ferry operating with cable before conversion to free-running.	J/F '64 i. cvr.
Real McCoy ferry converted to diesel power.	J/F '64 i. cvr.
Richmond-San Rafael Ferry; Commuter watching disappearing ferry on its last run.	S/O '56 p13
San Francisco Ferry House, ca. 1890.	M/J '64 p7
Sausalito Ferry Landing ca. 1890 with N. Pacific Coast Railroad ready to pull out.	M/J '64 p8
, r	1

FLOODING Bridges, flood damage to

1937; damage caused by unprecedented torrential rain storms Undermined bridge near Dales on Red Bluff-Susanville Hwy., Rt. 36. Washed-out abutment of Joseph Creek Br. at Alturas-Lakeview Rd., US 395. Yellow Creek Br. on Rt. 70 [Feather River Hwy.] at Belden 1938; Southern California Big Creek Br. on Rt. 1 [San Simeon-Carmel Hwy.], Monterey Co. showing collapsed falsework of one arch on partially completed structure. Big Tujunga Br., Los Angeles Co. damaged by flood. Bridge over Santa Ana River on US 101, under normal and flood conditions. Castaic Creek Br., Los Angeles Co. damaged by flood. Cujama Br. east of Santa Maria damaged by flood. High waters in Barton Wash damage bridge on Rt. 19 [Rt. 168-C], L.A. Co. San Antonio Creek Br., Ventura Co. damaged by flood. Apr '38 p14	
Washed-out abutment of Joseph Creek Br. at Alturas-Lakeview Rd., US 395. Yellow Creek Br. on Rt. 70 [Feather River Hwy.] at Belden 1938; Southern California Big Creek Br. on Rt. 1 [San Simeon-Carmel Hwy.], Monterey Co. showing collapsed falsework of one arch on partially completed structure. Big Tujunga Br., Los Angeles Co. damaged by flood. Bridge over Santa Ana River on US 101, under normal and flood conditions. Castaic Creek Br., Los Angeles Co. damaged by flood. Cujama Br. east of Santa Maria damaged by flood. High waters in Barton Wash damage bridge on Rt. 19 [Rt. 168-C], L.A. Co. San Antonio Creek Br., Ventura Co. damaged by flood. Apr '38 p14	ļ
Yellow Creek Br. on Rt. 70 [Feather River Hwy.] at Belden 1938; Southern California Big Creek Br. on Rt. 1 [San Simeon-Carmel Hwy.], Monterey Co. showing collapsed falsework of one arch on partially completed structure. Big Tujunga Br., Los Angeles Co. damaged by flood. Bridge over Santa Ana River on US 101, under normal and flood conditions. Castaic Creek Br., Los Angeles Co. damaged by flood. Cujama Br. east of Santa Maria damaged by flood. High waters in Barton Wash damage bridge on Rt. 19 [Rt. 168-C], L.A. Co. San Antonio Creek Br., Ventura Co. damaged by flood. Jan '38 p15 Apr '38 p10 Apr '38 p14	
1938; Southern California Big Creek Br. on Rt. 1 [San Simeon-Carmel Hwy.], Monterey Co. showing collapsed falsework of one arch on partially completed structure. Big Tujunga Br., Los Angeles Co. damaged by flood. Bridge over Santa Ana River on US 101, under normal and flood conditions. Castaic Creek Br., Los Angeles Co. damaged by flood. Cujama Br. east of Santa Maria damaged by flood. High waters in Barton Wash damage bridge on Rt. 19 [Rt. 168-C], L.A. Co. San Antonio Creek Br., Ventura Co. damaged by flood. Apr '38 p14	
collapsed falsework of one arch on partially completed structure. Big Tujunga Br., Los Angeles Co. damaged by flood. Bridge over Santa Ana River on US 101, under normal and flood conditions. Castaic Creek Br., Los Angeles Co. damaged by flood. Cujama Br. east of Santa Maria damaged by flood. High waters in Barton Wash damage bridge on Rt. 19 [Rt. 168-C], L.A. Co. San Antonio Creek Br., Ventura Co. damaged by flood. Apr '38 p10 Apr '38 p10 Apr '38 p14	
Big Tujunga Br., Los Angeles Co. damaged by flood. Bridge over Santa Ana River on US 101, under normal and flood conditions. Castaic Creek Br., Los Angeles Co. damaged by flood. Cujama Br. east of Santa Maria damaged by flood. High waters in Barton Wash damage bridge on Rt. 19 [Rt. 168-C], L.A. Co. San Antonio Creek Br., Ventura Co. damaged by flood. Apr '38 p14	
Bridge over Santa Ana River on US 101, under normal and flood conditions. Castaic Creek Br., Los Angeles Co. damaged by flood. Cujama Br. east of Santa Maria damaged by flood. High waters in Barton Wash damage bridge on Rt. 19 [Rt. 168-C], L.A. Co. San Antonio Creek Br., Ventura Co. damaged by flood. Apr. '38 p3 Apr '38 p14 Apr. '38 p2 Apr. '38 p14 Apr. '38 p2	0
Castaic Creek Br., Los Angeles Co. damaged by flood. Cujama Br. east of Santa Maria damaged by flood. High waters in Barton Wash damage bridge on Rt. 19 [Rt. 168-C], L.A. Co. San Antonio Creek Br., Ventura Co. damaged by flood. Apr '38 p14 Apr '38 p14 Apr '38 p2 Apr '38 p14	4
Cujama Br. east of Santa Maria damaged by flood. High waters in Barton Wash damage bridge on Rt. 19 [Rt. 168-C], L.A. Co. San Antonio Creek Br., Ventura Co. damaged by flood. Apr '38 p14 Apr '38 p2 Apr '38 p14	,
High waters in Barton Wash damage bridge on Rt. 19 [Rt. 168-C], L.A. Co. Apr. '38 p2 San Antonio Creek Br., Ventura Co. damaged by flood. Apr '38 p14	4
San Antonio Creek Br., Ventura Co. damaged by flood. Apr '38 p14	4
Santa Ana River Br. east of Colton damaged by flood Apr '38 n14	4
Santa Ana River Br. in Newport damaged by flood. Apr '38 p15	
Santa Ana River Br. in Santa Ana Canyon damaged by flood. Apr '38 p14	
Santa Ana River Br. in Santa Ana damaged by flood. Apr '38 p14	
Santa Ana River Br. near Olive, Orange Co. damaged by flood. Apr '38 p15	
Santa Clara River Br. near Fillmore. damaged by flood. Apr '38 p14	
Santa Clara River Br., Ventura Co. damaged by flood. Apr '38 p15	
Sespe Creek Br. east of Fillmore damaged by flood. Apr '38 p15	
Ventura Co. bridge Rt. 118 [Rt. 9] near Fillmore washed away. Apr '38 p12	
Verdurgo Creek Br. on Rt. 61, L.A. Co. before/after flood. Apr '38 p13	
Wreckage of bridge across Santa Ana Rvr., Orange Co. Apr '38 p14	4
1939; Approaches to bridge washed away by desert torrents on US 60. O '39 p19	
1940; Northern California	
Approach to bridge near Redding on I-5 [US 99] undermined by flood waters. Apr '40 p7	
Damaged bridge on Rt. 32, Tehama Co. Apr '40 p6	_
Flood damaged highway bridge across Trinity Rr. near Douglas City. Apr '40 p23	
Wrecked dredger washed against bridge piers. Apr '40 p23	
Ruins of bridge deck carried downstream 1000-ft. Apr '40 p5	
Site of Big Butte Creek Overflow Br. between Butte City and Biggs. Apr '40 p5	
Stephens concrete bridge, a county structure wrecked by flood waters. Mar '40 p5	
Surface, embankment wash-out at bridge approach near Butte City, Glenn Co. Apr '40 p6	
Washed out section of Greenwood Creek Br., Rt. 1, Mendocino Co. Apr '40 p7	
Washed out trestle approach to Scotia Br. across Eel Rr. on US 101. Apr '40 p6	
Wreckage of former county bridge on Sacramento Rvr. at Redding, Rt. 44. Mar '40 p6	
East approach to county bridge swept away by turbulent waters. Apr '40 p7	
1941 Chalama Craek Dr. on Dt. 22 alocad by an demaining of nion	2
Cholame Creek Br. on Rt. 33 closed by undermining of pier. Apr '41 p12 Cottonwood Creek Br. (Rt. 36 [Rt. 29], Tehama Co.), section of washed out. Apr '41 p13	
1942; Portion of railroad bridge span damaged by break of Feather River levee. Mar '42 p4 1943; Southern California	
	2
Approach to Castaic Cr. Bridge on US 99, Los Angeles Co. washed out. M/J '43 p13	
Lane of approach to Santa Clara River Br. on Rt. 14 [US 6] damaged. M/J '43 p13 1945; San Felipe Br., Imperial Co.	נ
Washed out section after flooding subsided. S/O '45 p22	2
Washout seen from upstream side showing debris accumulated on pile bents. S/O '45 p22	
1950; Destroyed Paradise overflow bridge on US 50 west of Mossdale. J/F '51 p30	
Aerial close-up of damage to bridge. Aerial close-up of damage to bridge. J/F '51 p30	
1953; Washed out bridge at Gilbert Creek just south of Oregon state line. M/A '53 p30	

FLOODING Damage, Continued

1955 11000	
Bailey Br., Rt. 299 at Douglas City Trinity Co.	J/F '56 p37
Emergency span being pushed across gap in Trinity	
River Br. at Douglas City, Rt. 299.	J/F '56 p39
Bear River Br. (temporary replacement).	J/A '56 p58
Bull Creek Br., debris left at site of.	J/A '56 p57
Constructing temporary bridge of redwood logs.	J/A '56 p57
Canyon Cr. Br. on Rt. 49 (Sierra Co.), erosion at.	J/F '56 p11
Chipps Creek Br. on Rt. 70 [US 40-Alt.] near Belden buried in silt and rock.	J/F '56 p38
Crane Cr. on Rt. 140 near El Portal, Mariposa Co.	J/F '56 p36
Eel Rvr. in Rt. 1 near Fernbridge, Humboldt Co.	J/F '56 p36
El Capitan Creek Br. n. of Santa Barbara (US 1010, debris at inlet end of.	J/F '56 p18
Home Creek Br. (temporary replacement).	J/A '56 p58
Hoopa Br. (Rt. 96, Trinity River), portion of washed 2,000 ft. downstream.	J/F '56 p3
Flood-demolished bridge.	J/F '56 p3
Bridge before/after destruction by flood.	J/F '56 p35
Kaweah River Br. on Rt. 201 [Rt. 131] near Lemon Cove, Tulare Co.	J/F '56 p36
Larrabee Creek Br., flood damage to.	J/A '56 p59
Repair work on bridge underway.	J/A '56 p59
Mad River Br. on US 101 near Arcata, Humboldt Co.	J/F '56 p37
Maple Hill Br. over S. Fork of Eel Rvr. J/A '56 p58	1
Mill Creek Br., Carpojo Creek Br. on Rt. 1 near San Simeon.	J/F '56 p37
Middle Fork Feather River Br. on Rt. 89 near Blairsden, Plumas Co.	J/F '56 p37
Price Creek Br., reconstructed.	J/A '56 p58
San Carpojo Creek Br. near Cambria (Rt. 1, San Luis Obispo Co.)	J/F '56 p17+
Saratoga Creek Br. n. of Santa Clara, debris removed from entrance of.	J/F '56 p34
Scott River Br., Kidder Creek Br. on Rt. 3 [Rt. 82] at Ft. Jones, Siskiyou Co.	J/F '56 p36
Scott River Br. near Hamburg, Rt. 96., before/after demolition by flood.	J/F '56 p38
Smith Point Br. across S. Fork Eel Rvr. on US 101 near Garberville,	1
flood damage repair work on.	M/A '56 p54
Trinity Rvr. Br. at Cedar Flat, Rt. 299, vital truss members battered by log.	J/F '56 p39
Uvas Creek Br. on Rt. 152 near Gilroy, Santa Clara Co.	J/F '56 p36
Yager Creek Br. on Rt. 36 at Carlotta, Humboldt Co.	J/F '56 p37
1964 Flood	1
Aerial view of Rt. 49 bridge across American River near Auburn.	M/A '65 p12
Army Caribou plane flying over destroyed bridge on Rt. 299.	J/F '65 p13
Bailey Br. (Smith River, US 199)	F
Clearing debris from.	M/A '65 p20
First girders being assembled.	M/A '65 p24
Temporarily repaired Bailey Br.	M/A '65 BC
Another Bailey Br. replacement on US 199 across Smith River.	M/A '65 p24
Bailey Br. temporary replacement at Gray Creek.	M/A '65 p29
Carryille Br. over Trinity Rvr., damage to (Trinity Co.).	J/F '65 p16
Cold Creek Br. on Rt. 20, Mendocino Co., washed out	J/F '65 p17
Debris under George M. Leatherwood Memorial Br. on US 101 near	
Dyerville, old span on Rt. 254 destroyed.	J/F '65 p4
Debris-logged concrete arch bridge on US 199 above Crescent City.	J/F '65 p5
Feather River Br. at Chester, Plumas Co., damage to.	J/F '65 p16
Fernbridge; Eel River Br., clearing debris from famous old concrete span.	M/A '65 p17
Forest Service Br. (Klamath Rvr. at Ishi Pishi, Humboldt-Siskiyou Co. line).	J/F '65 p16
Only abutment of same bridge remaining after flood.	J/F '65 p16
Gap across fallen N. Fork of Russian River Br. at Calpella.	J/F '65 p17
·	· · r ·

FLOODING Damage, Continued

recording Damage, Continued	
Klamath River Br.; traffic using temporarily repaired bridge. Logging truck crossing temporary log bridge which replaced collapsed	M/A '65 p22
Van Dozen Rvr span on Rt. 36 near Bridgeville.	M/A '65 p11
Lumber truck crossing temporary log bridge on Rt. 36 near Carlotta.	M/A '65 p13
One of twin bridges on US 101 at S. Scotia destroyed by flood.	J/F '65 p3
	-
Oregon Creek Br. near Camptonville (Yuba Co.), partly destroyed.	J/F '65 p17
Orleans Br.; temporary bridge under construction.	M/A '65 p2
Temporary low-level bridge across Klamath Rvr. at Orleans.	M/J '65 p46
Patricks Creek Br. (US 199)	NA/A 465 00
Front-end loader being used to put logs in place for temporary bridge.	M/A '65 p23
Finished bridge crossing Patricks Creek.	M/A '65 p23
Pier settlement on county bridge over S. Fork Cottonwood Cr. (Tehama Co.).	J/F '65 p17
Robinson Ferry (Paul Mudgett) Br. on US 101 near Rio Dell, damage to.	J/F '65 p2
Repairing Robinson Ferry Br.	M/A '65 p23
Repaired Robinson Ferry Br	M/J '65 p47
Scotia-Rio Dell Br.	
North abutment torn out by force of Eel River.	J/F '65 p6
Temporary one-way bridge of wooden piles, beams, and planks built	
across break at north end of Scotia-Rio Dell Br.	M/A '65 p15
Sixth Army pontoon ferry crossing Klamath Rvr. at site of ruined bridge.	M/A '65 p22
Pontoon ferry landing with load of emergency utility repair vehicles.	M/A '65 p22
Somersbar replacement bridge under construction.	M/A '65 p12
Stephens Br. over Cache Creek, Yolo Co., damage to.	J/F '65 p17
Temporary footbridge under construction.	M/A '65 p15
Thomas Creek Br. on FAS Rt. 1078 near Paskenta, Tehama Co., damage to.	J/F '65 p17
Upper Eel River Br. on Covelo road (Mendocino Co.), debris and.	J/F '65 p16
"Warning: only authorized persons allowed to pass this point" sign placed	
at entrance to temporary footbridge over gap in span.	M/A '65 p15
Washed out bridge on US 101 at Klamath.	J/F '65 p6
Whittmore Br. on FAS Rt. 977 in Humboldt Co., damage to.	J/F '65 p16
Willow Creek Br., Rt. 96	
Aerial view of collapsed bridge, and emergency log span.	M/A '65 p2
Breeches buoy rigged at Willow Cr. to carry people across collapsed span.	-
Collapsed bridge.	J/F '65 p17
Emergency log bridge over Willow Creek on Rt. 96.	M/A '65 p2
1966; Dist 6	1/2/65 14
Bridge over Tule River on Rt. 190 east of Porterville, withstood storm.	J/F '67 p14
Crane removing debris backed up against Clear Creek Br., Rt. 178 in Kern Co.	
"During" and "after" views of N. Fork Tule River Br on Rt. 190 at Springville.	
Typical damage to bridge understructure.	J/F '67 p14
Roads, flood damage to	
1920s	T/A 464 21
Flood damaged US 101 near Crescent City along Smith Rvr., 1920s. Flooded section near Humboldt-Del Norte Co. line, 1928.	J/A '64 p31
1937; Damage caused by unprecedented torrential rain storms	J/A '64 p31
Approach fill wash-out at Bear Creek south of Los Molinos, Rt. 99 [US 99E].	Jan '38 p15
	Ja '38 p13
Fill partially washed out along Trinity River west of Junction City, Rt. 299. Flood damage to Rt. 299 [Redding-Alturas Hwy.], Shasta Co. in 1937 storm.	F '40 p15
Flood waters on secondary road (San Diego-Jacumba) San Diego Co.	Mar '37 p15
	_
Flooded Rt. 1 [Rt. 56] south of Eel River Br. at Fernbridge.	Jan '38 p14
Overflow channel formed through Main St., Chester. Pavement and shoulders washed away north of Oceanside, San Diego Co.	Jan '38 p14 Mar '37 p13
1 avenient and shoulders washed away north of Oceanside, San Diego Co.	1v1a1 3/ p13

ELOODING Damaga Continued	
FLOODING Damage, Continued	In (20 m14
Pavement damaged by flood water east of Hamilton City, Rt. 32.	Ja '38 p14
Rock slide damage to highway on I-8 [US 80] near Jacumba, San Diego Co.	Mar '37 p14
Ripped out section of highway near Foster, San Diego Co.	Mar '37 p14
Rt. 70 [Feather River Hwy.] covered by boulders at Butte-Plumas county line. San Jacinto River tearing down bank on Foothill Road, Riverside Co.	Ja '38 p14 Mar '37 p15
· · · · · · · · · · · · · · · · · · ·	
Shoulders destroyed by ditch flood waters (Galivan-Irvine), Orange Co. Snow covered washout near Cisco on Donner Summit Rd., I-80 [US 40].	Mar '37 p14 Jan '38 p14
Undermined pavement at culvert east of Tustin in Orange Co.	Mar '37 p15
Washout east of Ingot, Rt. 299.	Ja '38 p14
Washout lear San Clemente, Orange Co.	Mar '37 p15
Washout of Three Flags Hwy. (US 395) south of Coleville (Mono Co.).	Jan '38 p14
Washout on Rt. 140 [Yosemite All-Year Hwy.], Mariposa Co.	Jan '38 p14
1937/38; Sacramento Valley flooded	van sopii
Break in levee along Sacramento Rvr. north of Colusa.	Jan '38 p17
Flooded farm lands south of Princeton and west of Sacramento Rvr.	Jan '38 p17
Flooded countryside north of Colusa.	Jan '38 p17
Levees saved	1
Flood waters rage through orchard near Lone Pine Ave., Butte Co.	Mar '38 p2
Break in Sacramento River levee and inundated acres near Chico.	Mar '38 p3
Same, after levee closing operations had begun.	Mar '38 p3
Sacramento Rvr. flood waters pouring into Yolo By-pass through	
Sacramento weir, Feb. 11, 1938.	Mar '38 p27
1938; Southern California	
Autos stuck in silt on I-10 [Rt. 26] near Colton, San Bernadino Co.	Apr. '38 p5
Auto washed away in Big Tujunga Wash flood, Rt. 118 [Rt. 9] near Sunland.	Apr. '38 p5
Boulder deposited by flood on Topanga Canyon Rd. below Wildwood.	Apr. '38 p6
Damage to Newhall-Saugus Hwy. in Los Angeles Co.	Apr. '38 p4
Damage to Rt. 126 between Piru and L.A. Co. line in Ventura Co.	Apr. '38 p9
Damaged embankment and pavement on Ridge Route Alt. (I-5) [US 99].	Apr. '38 p4
Damaged portion of Rt. 27 [Rt. 156] in Los Angeles Co.	Apr. '38 p5
Embankment washed out together with half the Newhall-Saugus Hwy.	Apr. '38 p5
Flooding on E St., San Bernadino road leading to Orange Show Pavilion.	Apr. '38 p8
Firestone Blvd., L.A., cleared of silt due to overflow waters from Coyote Cr.	Apr. '38 p9 Apr. '38 p5
Highway construction in Orange Co. washed out by flood waters. Highway dips washed out by Santa Maria River near Ramona.	Apr '38 p13
House washed onto highway on E St. near city limits of San Bernadino.	Apr. '38 p25
I-5 [Leg Rt. 4, US 99] in Weldon Canyon partially destroyed by Gavin Creek.	
Mud cleared from highway near east city limits of Colton, San Bernadino Co.	Apr. '38 p6
Portion of I-10 [Rt. 26] between Colton and Redlands washed away.	Apr. '38 p4
Rt. 1 (Coast Hwy.) undermined at mouth of Santa Monica Canyon.	Apr. '38 p5
Rt. 2 [Old National Trails Hwy., Rt. 66] washed out in Cajon Pass.	Apr. '38 p4
Shoulder wash-out, pavement undermined on I-10 [Rt. 26], San Bernadino.	Apr. '38 p4
Shoulders and pavement destroyed on Foothill Blvd.	Apr. '38 p4
Slide on I-5, Ridge Route. in L.A. Co. during storm.	F '40 p17
Slide on Rt. 1 [Coast Hwy.] north of Santa Monica, L.A. Co.	F '40 p17
Washed out section of Ridge Route Alt. (I-5) [US 99] in L.A. Co.	Apr. '38 p4
Washout north of Ojai on Rt. 33 [Ventura-Maricopa Hwy.], Ventura Co.	F '40 p15
Waterfall on Foothill Blvd. in San Bernadino Co. caused by flood waters.	Apr. '38 p1

LOODING Damage, Continued	
1939; Damage to desert highways	
Auto washed downstream off highway.	O '39 p8
Damage to roadways on Rt. 195 extending north from Blythe to Needles.	O '39 p7
Flooding on Jackson St. in Indio, Riverside Co. during storm.	O '39 p6
Long stretch of Rt. 60 carried away.	O '39 p8
State maintenance equipment marooned by flood.	O '39 p8
1940; Northern California	_
Flood damaged section of US 101 at Greenlaw Bluffs north of Dyerville.	Apr '40 p6
Highway shoulder cut away to pavement edge on Rt. 299, Trinity Co.	Apr '40 p6
Maintenance crews clearing slide on Rt. 1, Sonoma Co. near Jenner.	Apr '40 p7
Patties Cr. overflows Rt. 70 [Feather River Hwy., Rt. 24] in Butte Co.	Apr '40 p7
Rock slide blocking two lanes of Rt. 17 in Santa Cruz Co.	Apr '40 p6
Rock slide on Feather Rr. Hwy. east of Oroville.	Mar '40 p27
Rt. 15, flooded by a break at Meridan, in Sutter Co.	Mar '40 p5
Rt. 99 [US 99E] flooded near Biggs, Butte Co. Mar '40 p6	
Sacramento River Valley	
Food waters pouring through break in levee north of Colusa.	Mar '40 p1
Agricultural lands inundated by levee breaks north of Colusa.	Mar '40 p2
Cattle marooned on railroad tracks in flooded portion of Princeton.	Mar '40 p3
Gov. Olson visiting refugees housed at State Fair grounds after their	
evacuation from Yolo Co. lowlands by National Guardsmen.	Mar '40 p3
Levee break north of Colusa.	Mar '40 p5
Equipment repairing levee break along Sutter Bypass near Meridian.	Apr '40 p11
Debris washed up against Sutter Bypass levee.	Apr '40 p30
All that remained of several farm structures after February storms.	Apr '40 p30
Section of Rt. 113 [US 99] destroyed by flood in Solano Co.	Apr '40 p7
Slide area on Rt. 1, San Mateo Co.	Apr '40 p7
Slipout on Redwood Hwy. (US 101) north of Cloverdale.	Mar '40 p7
Slipout on Rt. 116 [Rt. 104] along Russian River near Guerneville.	Mar '40 p6
Street flooded and closed to traffic in Napa City, Napa Co.	Mar '40 p5
Washed-out riprap at end of sacked concrete protection on Rt. 16, Yolo Co.	Apr '40 p7
Washout on Rt. 9 [Rt. 42] in Santa Clara Co.	Apr '40 p6
1941	. (41 10
Fill settlement on Downieville road, Rt. 49 [Rt. 25], Nevada Co.	Apr '41 p13
Large slide on Rt. 16 [Rt. 50], Colusa Co.	Apr '41 p13
Section of highway carried away by flood waters through Topanga Canyon.	Mar '41 p2
Section of US 101 [Coast Rd.] in Santa Barbara Co. washed out by flood.	Mar '41 p2
Section of Rt. 299 between Redding and Weaverville in Shasta Co. ripped	Man (41 m1
out by floodwaters.	Mar '41 p1
Slide and detour road on Rt. 2 [Rt. 61], Los Angeles Co.	Apr '41 p13
Slide of huge rocks on Rt. 33 [US 399; Rt. 138], Ventura Co. north of Ojai. Slides of mud and rock covering section of Rt. 1 [Rt. 56], Monterey Co.	Apr '41 p12 Apr '41 p12
Slipout on Rt. 154 [Rt. 80, San Marcos Pass Hwy.], Santa Barbara Co.	Apr '41 p12
Slipout on I-80 [Rt. 14] between Carquinez Br. and Martinez.	Apr '41 p12
Torn out section of Rt. 79 [Rt. 194], Riverside Co.	Apr '41 p13
Washed out section of I-5 [US 99], Shasta Co.	Apr '41 p12
Washout on Hesperia road, San Bernadino Co.	Apr '41 p13
Washout on Rt. 20 [Tahoe-Ukiah Hwy.], Lake Co.	Apr '41 p12
Washout on Rt. 74 [Rt. 64, Capistrano-Elsinore road], Orange Co.	Apr '41 p13
Washout on Rt. 299 west of Redding.	Mar '41 p27
Washout on Topanga Canyon road, Rt. 27 [Rt. 156], Los Angeles Co.	Apr '41 p13
1942; Break in Feather River levee that flooded 32,000 acres of farmland.	Mar '42 p4
· · · · · · · · · · · · · · · · · · ·	1

LOODING Damage, Continued	
1943; Southern California	
I-40 [US 66] blocked by flood debris near Gish, San Bernadino Co.	M/J '43 p12
Roadway between bridges washed out in San Gabriel Canyon.	M/J '43 p13
Rt. 18 washed out, temporary detour near Crestline, San Bernadino Co.	M/J '43 p12
Sacramento; 16th St. viaduct	_
Flooding under viaduct.	F '43 p15
Tracks of Sacramento Northern and WP RRs. just escape submergence.	F '43 p15
Viaduct carrying traffic over flooded section of American River overflow.	F '43 p15
1945; Mojave-Lone Pine area	
Bus washed 1,000-ft from highway on US 395 [Rt. 23], Inyo Co.	N/D '45 p24
Mud and boulders over roadbed on Rt. 14 [Rt. 23], Kern Co.	N/D '45 p24
Shovel locating debris-covered roadway on Rt. [Rt. 23], Kern Co.	N/D '45 p24
Tractor removing deposit from roadway near Homestead, Rt. 14 [Rt. 23].	N/D '45 p25
Bulldozer working to uncover roadbed on Rt. 23.	N/D '45 p25
Washed out section of Rt. 23.	N/D '45 p25
1950	
Clean up operations on I-80 [US 40] after a washout at Mystic.	J/F '51 p31
Flood damaged section of Rt. 49 between Downieville and Sierra City.	J/F '51 p28
Flood damage on Rt. 140 [Yosemite All-Year Hwy.] east of El Portal.	J/F '51 p29
Bulldozer equipped with Caterpillar diesel tractor at work on Rt. 140.	J/F '51 p29
Heavy equipment clearing US 50 at Camp Sacramento.	J/F '51 p31
Slide on Mt. Diablo Rd. (Rt. 24) [Rt. 75], Contra Costa Co. near Orinda.	J/F '51 p31
Washed out section of Rt. 178 in Kern Co.	J/F '51 p33
1953; Northern California	
Temporary detour under construction around washed out embankment	M/A 552 - 25
near Eureka, US 101 (Redwood Hwy.).	M/A '53 p35
Washed out embankment near Blue Lake, Rt. 299. Washed out roadway near Trinidad on US 101 (Redwood Hwy.).	M/A '53 p36 M/A '53 p35
1955	M/A 33 p33
Aerial view of Marysville at critical stage of flood on Dec. 23, 1955.	J/F '56 p22
Break in Feather River levee at Nicolaus, and south of Yuba City, Sutter Co.	J/F '56 p21
Crews working to save north levee of Natomas Cross Canal.	J/F '56 p23
Dist 1	0/1 30 p23
Bluffs washed out on US 101 along Eel Rvr. at Shively.	J/F '56 p3
Box culvert washed out on Rt. 1 near Ferndale.	J/F '56 p5
Buildings of Weott on US 101 wrecked by Eel River.	J/F '56 p3, 5
Damage to Rt. 1 between Fernbridge and Ferndale caused by Eel River.	J/F '56 p5
Dist 2	
Complete washout of riprap and highway near Vitzthum, Trinity Co.	J/F '56 p10
Highway entirely destroyed at Chipps Creek on Feather River.	J/F '56 p7
Slides and erosion east of Arch Rock Tunnel on Rt. 70 [US 40-Alt.].	J/F '56 p8
Temporary detour under construction on Trinity Rvr. near Douglas City.	J/F '56 p9
Typical damage along Trinity River.	J/F '56 p9
Dist. 4	
Long washout on Rt. 9 west of Saratoga in Santa Clara Co.	J/F '56 p12
Rock slide west of Junction 56, Rt. 6 on Rt. 128, Napa Co.	J/F '56 p12
Slide blocking highway from Waterman Gap to Big Basin State Park.	J/F '56 p12
Slipout for full length of roadway, Rt. 128, Napa Co.	J/F '56 p12
Slipout on Rt. 35 [Rt. 5] south of La Honda, San Mateo Co.	J/F '56 p12
Washout on Niles Canyon Hwy., Alameda Co.	J/F '56 p12
Washout on Rt. 84 [Rt. 107], Alameda Co.	J/F '56 p12

FLOC

LOODING Damage, Continued	
Dist. 5	
Flooded Visalia Airport interchange, Tulare Co.	J/F '56 p14
Flooded section of Rt. 99 through and south of Chowchilla, Madera Co.	J/F '56 p15
Dist. 6	
Damage to roadway fill at east end of San Benito River Br. near	
Hollister, Rt. 156 [Rt. 22].	J/F '56 p17
Damage to roadway south of Big Sur Rvr. at Redwood Canyon, Rt. 1.	J/F '56 p16
Damage to sacked concrete riprap near Jungle Inn Br. across San Benito	
Rvr. south of Hollister on Rt. 180 [Rt. 119], San Benito Co.	J/F '56 p16
Dist. 10; Flood damage in vicinity of El Portal.	J/F '56 p19
Embankment washed out by Trinity River on Rt. 84 south of Hoopa.	J/F '56 p3
Embankment washed out on US 101 near Dyerville.	J/F '56 p3
Erosion around Sutter Causeway on Rt. 70 [US 40-Alt], Sutter Co.	J/F '56 p11
Erosion of shoulders on Rt. 49 in Coloma, El Dorado Co.	J/F '56 p11
Feather River levee, which broke at Yuba City in 1955 flood.	J/A '60 p56
Fill slipout on Rt. 49 east of Nevada City.	J/F '56 p11
Fill slipout on US 50 east of Placerville, El Dorado Co.	J/F '56 p11
Flood conditions at Folsom Dam and Reservoir on Dec. 24, 1955.	J/F '56 p20
Houses wrecked by flooding in Pepperwood on US 101	J/F '56 p3, 9
Major fill slipout on I-80 [US 40] west of Baxter, Placer Co.	J/F '56 p11
Masonry wall topped by high waters on Rt. 299 along Trinity River.	J/F '56 p5
Removing slide on US 101 near Piercy, Mendocino Co.	M/A '56 p56
Slides blocking US 101 at Dyerville on S. Fork of Eel River.	J/F '56 p5
Town of Klamath with Klamath River at flood stage.	J/F '56 p20 M/A '56 p59
Yuba City on Dec. 24, 1955 indicating flooded maintenance shop. 1961; Long Valley Creek slide causes flooding	M/A 30 p39
Bulldozer clearing slide which blocked Long Valley Cr.	
Flooded section of US 101 near Willits.	N/D '61 P26
1964; Northern California	N/D 01120
Air Force, Navy, and private aircraft at Arcata airport used to bring supplies	
to isolated areas and make countless rescue/reconnaissance missions.	J/F '65 p13
Before/after views of destruction and repair on US 101.	M/A '65 p25
Before/after views of damaged/repaired US 199 in Smith River Canyon.	M/A '65 p25
Boulder which slid down mountainside onto Rt. 299.	M/A '65 p6
Cable carrier carrying people and supplies across Canyon Cr., Junction City.	J/F '65 p13
CHC and Director of PW John Erreca observing gap in US 101 near Rio Dell.	M/A '65 p11
CHC members during inspection flight to Humboldt Co. flood area.	M/A '65 p9
Congressional subcommittee of US House of Representatives PW Committee	1
on tour of flood-ravaged areas.	J/F '65 p14
Convoy of evacuees working its way around detour on Rt. 299 at Junction City.	M/A '65 p8
Couple with sick child being evacuated by light helicopter.	M/A '65 p5
Damage and repair to US 101 at Squaw Cr. near Cummings (Mendocino Co.).	M/A '65 i.cvr
Damaged Humboldt Co. road.	J/F '65 p17
Debris deposited by flood on US 101 in redwood groves near Pepperwood.	J/F '65 p3
Destruction of culvert and road on Rt. 96.	J/F '65 p12
Earth deposited on tracks of railroad right-of-way near Alderpoint.	J/F '65 p4
Eel River in full flood at site of flood-destroyed town of Pepperwood.	J/F '65 p3
Engineers surveying damage on Humboldt Co. road.	J/F '65 p11
Flood damage at Mears Creek on I-5 [see J/F '65 p17]	J/A '65 p44
Flood victim employees receiving financial aid donated by other employees.	M/J '65 p49
Gap torn in US 101 at Cummimgs.	J/F '65 p5
Gaping washout of Rt. 208 in Mendocino Co. west of Leggett.	J/F '65 p15

FLOODING Damage, Continued

Thoobing bamage, continued	
Gillis, Lyman R., being interviewed en route to flood area.	M/A '65 p9
Government equipment trapped on Rt. 96 due to slides and slipouts.	J/F '65 p12
Guerneville in Sonoma Co. while Russian Rvr. was in flood.	J/F '65 p15
Highway covered with gravel and debris from Hospital Cr. near Hoopa.	J/F '65 p12
I-80 at Yolo Bypass resembling causeway to Key West.	J/F '65 p10
Light backhoe clearing drain on Rt. 299.	M/A '65 p6
Logs and debris carried down by rivers and washed into Crescent City harbor.	J/F '65 p6
Marine helicopter landing on street of isolated Willow Creek.	J/F '65 p13
Operations center for rescue missions at Rohnerville Airport.	M/A '65 p5
Partially repaired Rt. 96 along Trinity-Klamath Rivers.	M/J '65 p47
Public utility crew restoring electrical power to flood-stricken Humboldt	1.170 OC p . 7
Co. on damaged section of US 101 between Alton and Fortuna.	J/F '65 i.cvr.
Red Cross girl helping schoolchildren at Klamath crossing.	M/A '65 p22
Roadblock sawhorse caught on power lines after floodwater receded at Weott.	J/F '65 p7
Signpost in Humboldt Co. indicating high water level during flood.	N/D '65 p5
Truck convoy on US 101 at Garberville waiting order to proceed.	M/A '65 p21
Two-lane piece of paving falling into gap in road.	J/F '65 p17
Typical damage to country road, Humboldt Co.	J/F '65 p11
US 101 near Pepperwood, with one damaged lane, the other in use.	M/A '65 p21
US 199 in Smith River Canyon completely washed away.	J/F '65 p7
Washout at Bluff Creek across Rt. 96 along Klamath River.	J/F '65 p11
Westbound army convoy on Rt. 299 at Pony Creek.	M/A '65 p8
1965	M/A 03 po
Maintenance truck buried in mud on Rt. 111 near I-10 junction.	J/F '66 p31
Mangled remains of Snow Creek Br., which collapsed due to floodwaters.	J/F '66 p31
1966; Dist 6	J/F 00 p31
Damage to roadway caused by clogged culvert.	J/F '67 p14
Destroyed section of Rt. 180 in Kings River Canyon near park boundary.	J/F '67 p14
Section of Rt. 178 along Kern River near Bodfish with culvert failure,	
rock slide, water and debris on pavement.	J/F '67 p16
Flood Control	
Contra Costa Co.; Completed first stage of Walnut Creek channel relocation.	M/J '61 p77
Los Angeles Co.; Burbank-Western Storm Drain Channel	
Excavation of Burbank-Western Storm Drain Channel.	S/O '59 p11
Form work in place for bottom slab of storm drain channel.	S/O '59 p15
Reinforcing steel being placed in final position and checked.	S/O '59 p19
Merced Co., Rt. 99; divided highway solves flood problem	•
New section of Rt. 99 showing elevation to escape flood waters.	Jul '39 p16
Merced highway showing difference in grade between new and old road.	Jul '39 p17
Modoc Co.	1
Tule Lake Reservoir which was raised 6-ft. under emergency construction to	
prevent its destruction and consequent wiping out of West Valley Dam.	Jul '38 p23
Napa Cooperative Drainage Project near junction of collector channels at	•
railroad trestle and double bridge under Rt. 29.	M/A '61 p56
Outfall channel as seen from frontage road on Rt. 29 near Napa.	M/A '61 p59
Beginning of Norton Slough channel change.	M/A '61 p60
Sacramento Co.; 16 th St. Subway flood gate	г
Flood gate from river side showing aluminum sections in place.	O '37 p27
Storage compartment with door open, showing aluminum section as	1 .
stacked when not in use.	O '37 p27
Rear view showing aluminum gate in place; Close-up of rear of flood gate.	O '37 p27
Conventional design of flood gate.	O '37 p27

FLOODING Control, Continued

Santa Clara Co., Guadelupe River channel project	
Guadelupe River channel looking downstream.	M/J '61 p75
Improved Guadelupe River channel at Brokaw Rd. Br.	M/J '61 p75
Drop structure in river channel north of Brokaw Rd.	M/J '61 p75
Flood damage repair	
Butte Slough Levee	- (10 10
Break in Butte Slough Levee in Sutter Co. on March 1, 1940.	Jun '40 p12
Timber and sheet pile emergency overflow dam under construction.	Jun '40 p13
Bulkhead showing 3 drivers at work; Final closing of steel piling.	Jun '40 p13
Laborers wheeling cobbles for bottom protection in closure section.	Jun '40 p13
Bulkhead showing steel pilings; Drivers at work on structure; Wing levee.	Jun '40 p13
Emergency replacement and protection at washout on I-80 [US 40] near Truckee.	S/O '51 p31
Gov. Olson and officials view levee break north of Princeton.	Apr '40 p4
Mariposa Co.; Rt. 140 (Yosemite All-Year Hwy.)	Mor '20 n6
Typical flood damage to Rt. 140 caused by Merced River. Protective rock wall under construction on Yosemite All-Year Hwy.	Mar '39 p6
Rock wall flood protection being built on Yosemite All-Year Hwy.	Mar '39 p7 Mar '39 p8
1955; Reconstruction and riprap along Trinity Rvr. near Vitzhums.	M/J '57 p58
1964; Northern California	1 v1/3 37 p36
Boom of backhoe being used as crane for lifting sections of culvert	
into place near Richardson Grove.	M/A '65 p19
Clearing minor slide on US 101 near Cummings.	M/A '65 p20
Crane removing logs washed up on undamaged section of county road.	M/A '65 p20
Development of Blue Slide Rd. detour on Redwood Hwy.	M/A '65 p16
Equipment removing silt from road in Orick.	M/A '65 p19
Front-end loader clearing small slide on Rt. 299.	M/A '65 p7
Front-end loaders providing truck with fill material for washed-out section.	M/A '65 p20
Grader clearing silt and debris off Redwood Hwy. near Fortuna.	M/A '65 p19
Highway engineers waiting to be flown by helicopter for road repair job.	M/A '65 p6
Highway worker clearing mud-filled road with hand shovel.	M/A '65 p26
Partly rebuilt section of Rt. 199 in Smith River Canyon.	M/A '65 p21
Portable drill rig making holes for charges to widen Rt. 299 roadway.	M/A '65 p6
Rebuilding US 101 along lower Eel River.	M/A '65 p14
Rebuilt section of Rt. 299 near Willow Cr.	M/A '65 p13
Reconstructed Rt. 36 in Van Duzen Rvr Canyon.	M/A '65 p13
Repairing slipout.	M/A '65 p19
Rock truck used to replace road base.	M/A '65 p19
Tractor and blade clearing debris from stream bed.	M/A '65 p6
Tractor clearing section of road.	M/A '65 p7
Tractor towing public utilities repair truck around slipout.	M/A '65 p20
Workers from various agencies clearing flooded Rt. 36 at Alton.	M/A '65 p4
FREEWAYSSee also ROUTES	
Airspaceunder & over freeways	
Elevated freeway structure with parking beneath it.	N/D '66 p22
Members of Senate Fact Finding Committee on Transportation and Public	
Utilities which considered the problem of freeway airspace.	S/O '65 p3
Model illustrating some of the uses of freeway airspace under consideration.	S/O '65 p4
Model of freeway-spanning restaurant and heliport.	N/D '66 p31
Model of possible development above a depressed freeway in Los Angeles.	S/O '65 p5
Sunnyvale's former greyhound bus station, housed in a mobile-home.	S/O '66 p43
New greyhound bus station under Mathilda Ave. overhead on Rt. 85.	S/O '66 p43

EDEEWAYS C. A. I	
FREEWAYS, Continued	N/D ((0 - 11
Full freeway, expressway, and two-lane highway, examples of.	N/D '60 p11
Members of special AASHO freeway committee.	J/F '60 p66
Public hearings CHC and audiance at freeway routing public meetings held Ion. 20, 1056	
CHC and audience at freeway routing public meetings held Jan. 20, 1956 and July 14, 1955 at Chico State College Auditorium.	J/F '56 p43
CHC at public freeway route hearing.	J/F '66 p4
Citizens at public meeting involving a routing discussion in Stockton.	N/D '58 p3
Dist. 1 Engineer A.S. Hart conducts public meeting on freeway routing	10/10 30 p3
proposals in Ukiah Co. courthouse, Jan. 17, 1956.	J/F '56 p42
Engineers and citizens view maps at pre-public hearing, Dist. 4.	N/D '64 p41
Freeway routing hearing in progress in Sacramento.	N/D '61 p47
Harrison Baker (CHC) points out a freeway location on map.	S/O '59 p5
Local citizens at public discussion of freeway routings.	J/F '58 p31
Public discussion of freeway routes in Los Banos.	J/F '59 p53
GRADE SEPARATIONS & INTERCHANGES	
Interchanges, models of	
Aerial contour map of area stretched over styrofoam base.	M/J '65 p53
Base for models using styrofoam framed with wood.	M/J '65 p53
Constructing model roadways using plastic strips with T-pegs for support.	M/J '65 p54+
Construction using wooden pegs.	M/J '65 p56
"Crestline Interchange" model on display at Ontario Int'l Airport.	J/A '63 p43
Drawing of interchange between two freeways prepared for study purposes.	N/D '66 p22
Shaping styrofoam to desired contours.	M/J '65 p57
Tool developed for setting and checking super-elevation used to check roadway. Transferring a shaped contour interval to a drawing.	M/J '65 p56 M/J '65 p57
Interchanges, landscaping and—See LANDSCAPE & LANDSCAPE MAINTENANCE	M/3 03 p3/
By County	
Alameda Co.	
Castro Valley Project; I-580/I-880 [US 50/Rt. 17] connection	
Aerial view of Foothill Blvd. interchange.	S/O '56 p30
Official party at ribbon-cutting for Castro Valley Project.	S/O '56 p31
Connection from I-580/I-880 [US 50/Eastshore Fwy.] between San	_
Lorenzo and Castro Valley near East 24th St. interchange.	M/A '57 p12
Dublin Interchange looking north.	M/A '56 p10
East Bay Distribution Structure (Oakland)	
Future plans for.	M/A '54 p12
Pier construction for additional ramps.	S/O '54 p5
Construction near MacArthur Blvd.	M/A '55 p7
Construction on additions near Bay Br. approach.	M/A '55 p7
East Bay distribution structure as originally constructed in 1936.	N/D '55 p24
East Bay distribution structure after reconstruction, 1955.	N/D '55 p25
Oakland mayor Clifford E. Rishell, Engineer B.W. Booker (Dist 4), and guests at reception sponsored by Alameda Co. Advisory Committee.	N/D '55 p26
Distribution structure from Bay Br. toll plaza east.	M/A '56 p14
Distribution structure in Oakland looking east.	M/A '56 p14
Greenville overhead under construction (I-580, Altamont Pass).	Mar '38 p11
Overhead structure over SP RR and arched underpass carrying WP tracks.	S '38 p7
Greenville overhead crossing both railroads.	S '38 p7
Foothill Blvd./I-580 [US 50] Interchange.	1

GRADE SEPARATIONS Alameda Co., Continued

Lead all the English and English and the Engli		
I-880 (Nimitz Fwy.) [Eastshore Fwy, Rt. 17; US 40]	35/1 (50 15	35/11/50 4
Beard Rd. Interchange on the Eastshore Fwy.	M/A '58 p15;	
Davis St. interchange (San Leandro).	J/A '52 p51;	M/A '54 p16
Jackson St. separation (Hayward)just after opening to traffic.		J/F '58 p58
Separation structure on Eastshore Fwy.		J/F '58 p59
29th Ave. overhead.		M/A '49 p8
Winton Ave. cloverleaf interchange.		J/A '53 p43
Moraga Ave. Interchange on Rt. 13 (Warren Blvd Fwy.)		M/J '64 p29
Niles grade separation project, the Edenvale Underpass under track	s of WP RR	N '37 p19
N. Niles Underpass under tracks of the SP RR Co. at Niles.		N '37 p19
Powell St. separation structure under construction [I-80].		J/A '54 p6+
Redmond overhead under construction (Altamont Pass).		Mar '38 p11
Sunol Underpass under construction.		Jan '42 p11
Old grade crossing west of Sunol, Niles Canyon Rd.		Jan '42 p12
Blind intersection with SP grade crossing and blind approach to	o WP	
underpass near Sunol.		S '38 p2
Narrow underpass with impaired clearance and inadequate sigh	nt distance	
beneath WP RR near Sunol on Rt. 84 [Rt. 107].		S '38 p3
Grade crossing highway on "S" curve near Sunol station.		S '38 p3
University Ave. grade separation, Berkeley		
Sketch of planned structure.		Apr '39 p22
University Ave. overhead structure in Berkeley.		Jan '40 p23
Official group at dedication.		Jan '40 p23
4-lane divided roadway.		Jan '40 p23
Crossing of main railroad tracks.		Jan '40 p23
Contra Costa Co.		
Byron Hwy. [county road] railroad grade crossing on		N/D '53 p14
Crockett Interchange piers (I-80).		J/F '57 p37
El Cerrito overhead under construction (I-80) [US 40].		J/A '60 p59
T-beam construction underneath, side of overhead.		J/A '60 p60
I-80 [US 40]; Pinole grade separation near highway bridge over rail	lroad.	S '39 p23
New railroad cut; divided highway approach.		S '39 p23
Grade separation structures carrying county road and railway.		O '39 p21
Overcrossing carrying Wilbur Ave. over Santa Fe. RR tracks no	ear Antioch.	J/A '59 p44
Interchange structures seen from streets of Crockett. [I-80]		J/F '59 p9+
Oakvale Rd. overcrossing (Rt. 24).		M/J '60 p30
Orinda interchange (Rt. 24)		
Drawing of proposed Orinda Cloverleaf superimposed on aeria	l photo.	N/D '54 p47
Final stage of construction on Orinda interchange.		M/A '55 p12
Completed Orinda Interchange.		S/O '55 p59
Railroad Ave overcrossing (Rt. 4).		N/D '52 p6
Rt. 24 separation structure on Walnut Creek Bypass.		N/D '60p52
Stewartville Rd. underpass looking north toward Antioch (Rt. 4).		N/D '52 p7
Stewart Rd. undercrossing (Rt. 4).		N/D '52 p5
Three-level interchange near Hercules at I-80/Rt. 4 [US 40/Rt. 75] j	junction.	M/A '59 p15
Walnut Creek Interchange on Rt. 24.		M/A '60 p13
Humboldt Co.		-
Scotia Bypass undercrossing showing on-ramp underpass and off-ra	amp. (US 101).	S/O '53 p8
US 101/Rt. 299 interchange north of Arcata; Completed interchange	e.	N/D '56 p45
Trinidad Interchange under construction (US 101).		J/A '60 p23
		-

GRADE SEPARATIONS, Continued

Fresno Co.	
California Ave. overcrossing (Rt. 99, Fresno).	M/A '49 p27+
Mendocino Ave. Overcrossing and Overhead south of Kingsburg.	J/F '65 p20
Monterey St. overpass structure (Rt. 99, Fresno).	M/A '49 50
Stairway for G St. crossing of southbound Monterey St. overpass.	M/A '49 p28
Mountain View Ave. junction.	J/F '65 p18
Kern Co.	3/1 03 p16
Alfred Harrell Hwy. (Hart Park Rd.)-China Grade Loop Interchange.	N/D '57 p11
Bakersfield/Hart Memorial Park diamond interchange.	M/A '60 p43
Delano grade crossing on Rt. 99, and subway that replaced it.	May '39 p13
Famosa grade separation.	Mar '37 p21
Old Famosa Overhead and approach fills.	J/A '57 p9
Famosa Overhead and approach fins. Famosa Overhead under construction.	J/A '57 p9
Grade separation structure on Oak St. [Rt. 141] in Bakersfield.	N '39 p21
Minkler Spur Underpass viewed from point north of structure.	J/F '49 p21
Pierce Rd. rotary separation structure north of Bakersfield, Kern Co.	J/F '51 p52
Rt. 58 [Rt. 178]; Tehachapi-Keene highway crossing Tehachapi overhead.	N/D '48 p40
Rt. 99/Rt. 466 [US 466] separation under construction.	J/A '57 p8
Separation structure carrying traffic over Garces Circle. in Bakersfield.	S/O '58 p36
Union Ave./Panorama Dr. Interchange in Bakersfield.	M/A '60 p43
Los Angeles Co.	E (05 0
Atlantic Blvd. grade crossing.	F '37 p3
Atlantic Blvd. grade separation under construction.	M/J '49 p57
Barham Blvd. separation structure.	M/A '49 p24
Century BlvdSepulveda Blvd. separation at LA. International Airport.	J/F '67 p8
East Los Angeles Interchange ["East Loop"]	
Model of interchange. N/D '58 p19+; S/O '59 p20;	J/F '61 p15
Interchange under construction. S/O '59 p20;	J/F '61 p17
Completed interchange roadways at East L.A. interchange.	J/F '61 p18
Branch connections of East Los Angeles interchange.	M/A '61 p10
Dedication for I-5 (Golden State FwySanta Ana Fwy.) connection.	M/J '61 i.cvr.
Junction of Pomona, Santa Ana, Santa Monica, and Golden State Fwys.	J/F '67 p42
East Redondo Beach grade separation with Santa Fe RR	S/O '54 p52
Fireside Blvd. separation structure.	F '37 p3
Old grade crossing it replaced.	F '37 p3
Before and after views of dangerous grade crossing on Firestone Blvd.	May '39 p11
Fletcher Dr. [Rt. 162]; cars piled up behind grade crossing.	N/D '54 p4
Four-Level grade separation structure	
Under construction.	J/F '49 p61
Looking westerly along upper Hollywood Parkway level.	J/F '49 p62
Four-Level structure under construction near Court St.	J/F '49 p64
Autos using lowest level for first time.	M/J '51 p15
Model of Four-Level grade separation structure on display.	S/O '52 p22
Traffic on Four-level structure, 1951; Traffic on structure 1956.	J/F '56 p64
Four-level structure looking south along Pasadena-Harbor Fwy.	J/F '59 p31
View from underneath nearly completed Four-level structure ca. 1951.	J/A '60 p56
Four-level interchange.	M/J '66 p14
Artist Ralph Hulett's painting of a section of the Four-level.	J/A '66 p17
Ft. Tejon Overcrossing under construction.	S/O '60 p7

GRADE SEPARATIONS Los Angeles Co., Continued

Interchanges of major freeways I-5/I-10 (Santa Ana/San Bernadino Fwy.) Interchange Junction of San Bernardino-Santa Ana Fwy. J/A '48 p14 Pretressed span over eastbound I/5 (Santa Ana Fwv.) bridge and on-ramp for eastbound I-10 (San Bernadino Fwy.). M/A '55 p33 J/F '56 p62 Interchange when first opened. Heavy traffic on interchange during construction of structure. J/F '56 p62 I-10/I-405 (Santa Monica Fwy./San Diego Fwy.) interchange. N/D '64 p5 I-5/I-605 (Santa Ana-San Gabriel River Fwy.) Interchange, columns for M/A '64 p30 I-5/I-710 (Santa Ana/Long Beach Fwy.) Interchange Aerial view of interchange. M/A '56 p30: J/F '57 p9: S/O '58 p56 Construction of interchange structures. M/A '56 p30+ Completed interchange. M/A '61 p11 I-5/Rt. 2 (Golden State-Glendale Fwy.) Interchange. J/F '61 p21+ J/F '61 p18 Crane pouring columns for bridge structures. N/D '61 p36 Nearly completed interchange. I-5/Rt. 110 (Golden State/Arroyo Seco-Pasadena Fwy.) Interchange. J/F '61 p22 Key construction features of interchange. S/O '61 p11 Overhanging abutment at north end of Arroyo Seco Channel Off-ramp. S/O '61 p12 I-5/Rt. 126 [Golden State Fwy.-Rt. 79] Interchange M/A '64 p22 Under construction. S/O '65 p23 Interchange near Castaic Junction. M/J '65 p34; I-10/I-5 (San Bernadino-Golden State Fwy.) Interchange. J/F '60 p13 I-10/I-405 (San Bernadino-Long Beach Fwy.) Interchange under construction. J/F '60 p9 I-10/Rt. 2 [Rt. 26/Rt. 2] separation under construction near Macy St. M/A '55 p30+ I-405/Rt. 10 (San Diego/Santa Monica Fwy.) Interchange N/D '64 p26, 65: J/F '67 p37 Under construction. I-710/Rt. 60 (Long Beach-Pomona Fwy.) Interchange under construction. M/J '65 p38 I-110/Rt. 10 (Harbor-Santa Monica Fwy.) Interchange. J/F '67 p43 Harbor Fwy. detour around construction of Santa Monica Fwy. separation near Venice Blvd. J/A '59 p31+ Construction near north end of Harbor Fwy. detour. J/A '59 p32 Temporary bridge carrying Venice Blvd. over Harbor Fwy. detour. J/A '59 p32 J/A '59 p33 Pouring concrete on third level of Santa Monica Fwy separation. Reinforcing steel bars, concrete pouring operations. J/A '59 p33 Completed portion of third level. J/A '59 p34 I-710/Rt. 1 (Pacific Coast Hwy.) Interchange. S/O '58 p49 I-5; Golden State Fwy. Bridge bents under construction for I-5/I-210 [Rt. 4/157] separation. J/F '54 p41 Cloverleaf interchange with Western Ave. in Glendale. J/F '58 p7 Construction underway on interchange for future Ventura Fwy. S/O '57 p22 Grade separation with SP RR and traffic interchange with Sepulveda Blvd. J/F '56 p65 I-5: Santa Ana Fwy. Lakewood cloverleaf traffic interchange. J/F '54 p8 "Mix-Master" interchange system near Atlantic Blvd. J/F '52 p21 Garfield Ave. undercrossing. J/F '52 p23 Olympic Blvd. overpass under construction. J/F '52 p21+ J/F '52 p23 Santa Fe RR grade separation under construction. S/O '55 p10 Santa Fe RR grade separation and Lincoln St. Overcrossing. Simons Underpass, steel girder being secured in place. M/J '52 p21 Simons Underpass structure nearly completed. N/D '52 p39 Dismantling Simons Underpass shoo-fly [temporary] bridge structure. N/D '52 p39

GRADE SEPARATIONS Los Angeles Co., Continued

RADE SEPARATIONS Los Angeles Co., Continued	
I-10; San Bernardino Fwy. [Ramona Fwy.]	
Atlantic Blvd traffic interchange.	J/F '54 p12
Combination grade separation structure spanning Garey Ave. [Rt. 71],	
McKinley Ave., and Orange Grove Ave.	J/F '55 p24
Floral Park undercrossing under construction.	J/F '52 p19
Pomeroy St. overhead, a companion traffic interchange structure to Soto St.	M/A '43 p19
Santa Ana Fwy. interchange under construction.	J/F '55 p24
Soto St. interchange structure nearing completion on Ramona Fwy.	M/A '43 p19
I-110; Harbor Fwy.	
Loop viaduct bridge structures constructed over Harbor Fwy.	J/F '61 p18
North Anaheim St. undercrossing under construction, Wilmington.	J/A '55 p58
I-210 (Foothill Fwy.); Rt. 159/118 [Rt. 165/9] separation under construction.	J/A '54 p51
I-605; San Gabriel River Fwy. Interchange under construction at Valley Blvd.	M/A '64 p31
I-710; Long Beach Fwy.	
Artesia Ave. cloverleaf interchange.	N/D '57 p7
Belhart Ave. grade separation and traffic interchange facilities.	N/D '52 p11
Dominguez St. separation and UP RR separation under construction.	J/A '54 p24
Steel girders in place for Dominguez St. separation structure.	J/A '54 p29
East Yard Overhead structure, placing deck slab concrete on.	J/A '54 p30
UP railroad tracks under East Yard Overhead.	J/A '54 p31
Firestone Blvd. cloverleaf and Los Angeles Rvr. Channel.	S/O '58 p52
Florence Ave. cloverleaf interchange.	N/D '57 p7
Landkershim Blvd. underpass (Hollywood Fwy., US 101)	M/A '49 p22
Los Feliz Rd. grade crossing (Glendale-Los Angeles city line).	N/D '54 p3
Mission Rd./Huntington Dr./Soto St. intersection, separation structure.	F '37 p3
Old grade crossing it replaced.	F '37 p3
N&O Street Viaduct in Wilmington (Rt. 1) [Rt. 60, Roosevelt Hwy.]	Aug '37 p33
Pico underpass beneath UP at Whittier Blvd. (Rt. 19) [Rosemead Arterial/Rt. 168].	D '38 p23
Pomona grade separation; south channelization of approach to grade separation.	May '40 p7
Rt. 1 [Coast Hwy.]/Colorado Ave. intersection, Santa Monica.	
tunnel, ramps, and overhead grade separation structure at.	S '40 p18
Overhead structure across 4-lane Rt. 1. at Santa Monica.	S '40 p19
Tunnel and ramp at intersection with Appian Way.	S '40 p19
Rt. 19 grade separation on carrying railroad tracks over highway near Riviera.	D '38 p23
Rt. 110; Arroyo Seco PkwyPasadena Fwy.	_
Castelar St. at Figuroa St. intersection, site of proposed grade separation.	O '40 p8
Grading at site of Bishops Rd. grade separation and construction of dam.	S '41 p7
Grading work and site of two overhead grade separation structures at	-
intersection of Castelar and Figuroa Streets.	S '41 p8
Park Lane grade separation under construction.	S '41 p8
Several separation structures on Arroyo Seco Pkwy.	J/F '44 p7
Rosemead Blvd. underpass near Rudell Station (Rt. 164) [Rt. 168]	D '38 p23
San Gabriel Blvd.; old subway and new highway subway.	May '39 p14
Terminal Island Fwy.	
Hobson Ave. overhead, and Terminal Island Fwy. undercrossing.	N/D '47 p28
Classification Yard overhead.	N/D '47 p28+
Union Pacific Overcrossing on Terminal Island Fwy.	N/D '47 p33
US 101, Hollywood Fwy.; Western Ave. overcrossing under construction.	J/F '50 p23
US 101; Ventura FwyHolland Ave. interchange under construction.	J/F '59 p35
US 101/I-405 (Ventura/San Diego Fwy.) interchange J/F '59 p39;	M/J '60 p2
Valley Blvd./Soto St. intersection, separation structure.	F '37 p3
Washington Blvd.; four lanes funneled into two-lane underpass in L.A.	N/D '54 p5
•	-

GRADE SEPARATIONS. Continued

GRADE SEPARATIONS, Continued	
Marin Co.	
Alto interchange near Richardson Bay Br. (US 101). M/A '57 p20;	M/A '58 p16
California Park Overhead under construction (US 101/Rt. 17 jct., San Rafael).	M/A '58 p17
Corte Madera Interchange (US 101).	M/A '58 p16
Ignacio Wye Interchange on US 101 at junction with Rt. 37.	M/J '64 p34
Forbes Overhead, one mile north of San Rafael.	J/A '52 p34
Forbes Overhead twin structures (US 101).	M/A '58 p16
Greenbrae Interchange (US 101). M/A '59 p52;	M/A '60 p17
Under construction.	M/A '57 p17
Lucas Valley undercrossing; Lucas Valley underpass.	J/A '52 p35
Overcrossing under construction on US 101 near San Rafael.	S/O '53 p10
San Pedro Rd. undercrossing north of San Rafael.	J/A '52 p34
San Quentin Wye overcrossing on US 101.	S/O '53 p10
San Quentin Wye separation structure.	S/O '53 p11
Looking south from overcrossing toward San Francisco.	S/O '53 p13
Construction looking north from separation structure toward San Rafael.	S/O '53 BC
San Quentin Wye Overcrossing connection to Rt. 17 (San Rafael).	M/A '60 p17
US 101/Rt. 1 grade separation at Waldo showing Marin City.	N/D '43 p6
Waldo grade separation of US 101 and Marin City road.	N/D '43 p7
Merced Co.	
Livingston Underpass (Rt. 99)	
Old railroad crossing looking southerly toward Livingston.	F '38 p17
Traffic blockade caused by train.	F '38 p17
Excavation for Livingston underpass.	F '38 p17
Completed underpass at Livingston.	Mar '39 p12
Scene at opening of Livingston underpass.	Mar '39 p12
Railroad grade crossing, and underpass that eliminated it.	May '39 p13
Rt. 99/Rt. 59 (J St.) separation in Merced.	J/A '64 p45
W. Merced overcrossing under construction.	J/A '64 p45
Monterey Co.	
Interchange south of Soledad north of Salinas River (US 101).	M/A '61 p52
Railroad grade intersection with US 101 at entrance to Salinas, before/after.	May '39 p12
US 101; Salinas Fwy.	
Alisal St. Undercrossing under construction.	M/A '54 p36
E. Market St. separation structure under construction.	M/A '54 p37
Old Spence Underpass.	M/A '54 p35
N. Main St. interchange.	M/A '54 p36
Napa Co.	11271 C . po o
First St. Interchange under construction in Napa on Rt. 29	M/J '64 p35
Orange Co.	1.1,0 0. pse
Newport Overhead	
East and west ramps and Rt 1 [Coast Hwy.] passing under viaduct.	Jan '37 p7
Official party at dedication.	Jan '37 p7
Gov. Merriam cutting wire which held closed old gate barrier.	Jan '37 p7
Crowd attending dedication.	Jan '37 p7
	Jan 3/ p/
Nicolas Ave. Underpass, Fullerton. S/O '60 p19	
Rt. 22/I-5 junction (Garden Grove-Santa Ana Fwy.) [Rt. 2/43]	T/A 455 51:
Separation structure at Tustin Ave.	J/A '55 p51+
Interchange under construction.	M/A '64 p28
Completed. N/D '64 p15, 51;	M/J '65 p47
Four-quadrant cloverleaf interchange at junction of Rt. 55 and I-5.	N/D '64 p44
Rt. 133/I-5 (Santa Ana Fwy.) separation structure.	J/A '58 p24

GRADE SEPARATIONS, Continued

GRADE SEPARATIONS, Continued		
Placer Co.		
Bowman Overhead near beginning of project, old structure on right.	M/A '51 p58	
Colfax grade separation structure.	D '39 p27	
Grade crossing of tracks of Southern Pacific main line in city of Colfax.	May '39 p19	
East Auburn Underpass, ca. 1957.	J/F '65 p57	
Old East Auburn Underpass, 1914.	J/F '65 p56	
Hallbom Rd. Undercrossing under construction (I-80, Newcastle).	S/O '56 p42	
Roseville Underpass		
Jerrold L. Seawell at ground-breaking ceremonies.	N/D '48 p24	
Charles C. Lee spades first earth as official group looks on.	N/D '48 p26	
Roseville underpass, which carries traffic under railroad tracks to and from		
I-80 [US 40] and Rt. 65 [US 99E].	M/A '50 p1	
Aerial view of the improvement and surrounding area.	M/A '50 p2	
Widening of Rt. 65 [US 99E] gives sight distance to Andora subway.	M/A '50 p3	
Plumas Co.	•	
Grade crossing on Rt. 89 [Rt. 83] near Greenville before improvement.	Mar '38 p15	
Structures across railroad and stream connected by highway fill	1	
on improved alignment.	Mar '38 p15	
Reinforced concrete overhead across railroad on two 4-column piers.	Mar '38 p15	
Portola Overhead	1	
Traffic delayed by train at grade crossing.	N/D '53 p13	
Grade crossing without blocked traffic.	N/D '53 p13	
Railroad overhead and bridge over N. Fork Feather River under construction.	N/D '53 p53	
Bridge across M. Fork Feather River and grade crossing before improvement.	S/O '54 p25	
Labor Day parade over Portola Overhead.	S/O '54 p26	
Assemblywoman Pauline Davis and official party at ribbon-cutting ceremony.	S/O '54 p26	
Riverside Co.		
Box Springs grade separation overhead near Beaumont.	Aug '37 p17	
I-10 [US 70-99] (Redlands-Beaumont); undercrossing at intersection of Rt. 60.	M/J '51 p23	
Rt. 111; Palm Springs-Rt. 86 [US 99] unit	1	
Underpass beneath railroad on Palm Springs realignment.	Mar '40 p11	
Reinforced concrete slab bridge over Whitewater River overflow channel.	Mar '40 p11	
Sacramento Co.	ī	
12th St. underpass, Sacramento,		
Widening about halfway completed.	M/J '49 p22	
Close-up of pile driving operations on underpass project.	M/J '49 p23	
Bus-80; North Sacramento Fwy.	1	
Depressed section under Marconi Ave. structure, not yet under construction.	S/O '46 p18	
Canterbury Rd. overcrossing, Deadman Slough structure in distance.	S/O '46 p18	
Elvas Underpass under SP RR tracks (Bus-80, Elvas Fwy.).	N/D '54 p17	
Fruitridge Rd. West Interchange (S. Sacramento Fwy., Rt. 99) [US 50-99]	J/F '62 p16	
North Sacramento-Elvas Fwy. interchange near Arden Way interchange.	J/A '61 p45	
Sutter Rd. Overpass and approach.	N/D '61 p43	
San Bernardino Co.	· - F	
8th St. Underpass, Colton		
Sen. James E. Cunningham and official party at ribbon-cutting ceremony.	J/A '56 p26	
Traffic jam on 8th St. at SP RR crossing before construction.	J/A '56 p27	
Completed 8th St. Underpass at I-10 [US 99] junction.	J/A '56 p27	
8th St. Underpass, J St. off-ramp undercrossing, and 8th St. Undercrossing.	J/A '56 p28	
Cedar Ave. grade separation (I-10) [Ontario-Colton Fwy.]	- r	
Under construction.	J/A '46 p20	
Cedar Ave. grade separation at Bloomington	J/A '48 p5;	
	- r-,	

Gł	RADE SEPARATIONS San Bernardino Co., Continued	
	Cherry Ave. overcrossing and railroad overhead replaces former grade crossing.	M/J '60 p43
	Citrus Ave. overhead under construction.	M/J '60 p45
	Colton three-level interchange: I-10 [US 70-99]/ I-15E [US 91-395].	N/D '58 12
	Colton interchange joining San Bernadino Fwy. and Riverside Fwy.	N/D '58 14
	Night crew lifting girders into position at three level interchange.	M/J '60 p45
	Crestline Interchange	
	Relocating telephone poles by helicopter during construction.	J/A '66 p18
	Interchange on side of Mt. Anderson before reconstruction.	J/A '66 p21
	Model of proposed interchange; Completed Crestline Interchange.	J/A '66 p21
	Cross Roads Interchange (I-10)	M/A '60 p7
	Official party at dedication.	M/A '60 p4
	Haven Ave. Interchange under construction (I-10; San Bernardino Fwy.)	M/J '59 p27
	Highland Ave. (Rt. 30)/I-15 [US 66-91] Interchange, San Bernadino.	M/J '59 p31
	I St. Overhead, San Bernardino	S/O '51 p42
	Construction for Pier 4 shaft adjacent to Santa Fe main track.	S/O '51 p42
	5th St. traffic blocked by train prior to construction of overhead.	S/O '51 p43
	Mt. Vernon Ave. grade separation (I-10, Colton).	M/A '57 p21
	Riverside Ave. interchange and freeway on I-15E [US 70-99].	M/J '60 p46
	State St. interchange on I-15 [US 66-91-395] near San Bernadino.	N/D '58 p15
Sar	n Diego Co.	•
	18th St. UP undercrossing, National City. J/F '51 p35;	S/O'51 p20
	24th St. UP undercrossing, National City. J/F '51 p35;	S/O'51 p20
	56th St. separation and subdivision near east city limits of San Diego (Rt. 94).	N/D '55 p6
	Douglas St. overcrossing on Washington St. connection to new Navy access road.	M/A '45 p21
	F St. UP bridge, Chula Vista.	J/F '51 p36
	Fairmont Ave./I-8 [US 80] Interchange east of San Diego. N/D '58 p40;	M/J '61 p26
	Four level interchange; I-5/Rt. 163 [US 101-395]	_
	Model of proposed interchange in San Diego.	S/O '60 p15
	Construction, showing temporary haul bridge over Cabrillo Fwy.	M/A '61 p61
	Four-level interchange under construction. M/A '61 p62;	N/D '61 p55
	Completed four-level interchange.	J/A '64 p2+
	Landscaping on four-level interchange. S/O '65 p11;	J/F '66 p42
	E St. Freeway overcrossing, Chula Vista.	J/F '51 p36
	H St. overcrossing under construction.	S/O'51 p20
	I-5; Oceanside-Carlsbad Fwy. [US 101] grade separations and interchange ramps.	M/A '54 p34
	I-5/Rt. 163 [US 101-395] interchange in San Diego. model of.	M/J '60 p10
	I-8 [US 80]/Fairmont Ave. interchange near E. San Diego.	M/J '59 p3
	I-8 [US 80]/Rt. 67 interchange near El Cajon.	M/J '59 p5
	I-15 [US 395]/Clairmont Mesa Interchange.	M/J '59 p7
	Lake Murray/I-8 [US 80] Interchange, San Diego.	N/D '58 p33
	Magnolia Ave. Interchange under construction on I-8 [US 80].	S/O '61 p67
	Mission Valley-Cabrillo Fwy. Interchange; I-8/Rt. 163 [US 395-US 80]	
	Aerial view of.	M/A '48 p3, 5
	Interchange under construction near San Diego.	N/D '58 p39
	Reconstructed interchange in San Diego. J/A '60 p2+;	N/D '60 p14
	Reconstructed interchange at night.	J/A '60 p2
	Interchange during reconstruction.	J/A '60 p3
	Completed section of rebuilt interchange near Presidio Park Overcrossing.	J/A '60 p4
	Interchange before reconstruction.	J/A '60 p5
	Mission Valley I-8/I-5 cloverleaf grade separation. [US 80/US 101]	N/D '43 p2
	Mission Valley interchange by day; interchange at 2:30am.	N/D '51 p11

GRADE SEPARATIONS San Diego Co., Continued	
Mission Valley Overpass, San Diego.	S/O '44 p2
Model of proposed I-5/I-8/Rt. 109 Interchange on display in San Diego.	M/J '65 p58
Oceanside grade separation, showing three planes of travel.	M/J '47 p31
Palomar St./I-5 [US 101] Interchange, salt drying beds in distance.	N/D '58 p37
Rt. 67/I-8 [US 80] Interchange under construction at Grossmont Summit.	N/D '58 p39
Ward Rd./I-8 [US 80] intersection, 1955; Ward Rd./I-8 [US 80] Interchange, 1961.	M/J '61 p26
Washington St. Interchange on I-5 [US 101] in San Diego.	N/D '58 p37
Vista Way separation at I-5 [US 101]/Rt. 78 junction (Oceanside-Carlsbad).	N/D '55 p2
San Francisco Co.	P-
I-280 [Southern Fwy., Rt. 82]	
Interchange under construction at junction with Bayshore Fwy.	M/A '60 p23
US 101 (Bayshore Fwy.)	1
Division St. interchange.	M/A '55 p3
Interchange under construction at junction with first unit of Southern Fwy.	M/A '59 p6
Pile driving operations at 9th and Bryant Sts., San Francisco.	M/A '52 p51
Steel stringer spans of S.F. Airport interchange structures, 1947.	S/O '50 p129
US 101/Rt. 82 [I-280] Interchange in San Francisco.	J/A '64 p12
San Joaquin Co.	v · p
Charter Way Underpass, Stockton	
Dir. of PW Earl Lee Kelley addressing crowd at dedication of.	May '37 p11
Official group at ribbon cutting ceremony; Close-up of underpass.	May '37 p11
Harding Way Underpass in Stockton.	J/F '61 p66+
I-205 [US 50]/Rt. 120 Interchange at Mossdale under construction	J/A '58 p21
Main St. overhead, Stockton US 99/50 separation structure. J/A '49 p30;	M/A '50 p53
Mariposa Rd. and Farmington Rd. Interchange on Rt. 99, a step in the	The second
	J/F '65 p29
Rt. 99 underpass of Central California Traction Railroad.	J/A '49 p33
Rt. 99 underpass of Atchison, Topeka, and Santa Fe RR, Stockton.	J/A '49 p33
Wilson Way Underpass (Rt. 99, Stockton)	
Dedicated by Gov. Frank F. Merriam.	Mar '38 p16
Official group at Wilson Way dedication, 2/19/38.	Mar '38 p16
Where Rt. 99 formerly crossed the railroad tracks at	co P
Wilson Way, replaced by divided underpass. May '39 p12;	S '39 p13
US 50 looking south from separation of Wilson Way.	J/A '49 p32
San Luis Obispo Co.	
March St. grade separation, completed structures for.	J/A '53 P37
Oceano; grade separation on "S" alignment over railroad at Oceano,	O '38 p2
La Cuesta grade separation with small angle between road and railroad.	D '38 p17
	M/A '58 p49
San Mateo Co.	1
Rt. 1/Skyline Blvd. [Rt. 56/Rt. 55] Interchange under construction.	M/A '58 p20
US 101 (Bayshore Fwy.)	•
Cloverleaf crossing to San Francisco airport.	S/O '50 p111
Final stages of construction near Hillsdale Blvd. interchange, San Mateo.	M/A '55 p5
Ralston Ave. interchange in Belmont near completion of construction.	M/A '55 p5
Willow Rd. interchange, looking north.	M/A '56 p8
Santa Barbara Co.	1
Salsipuedes twin overhead structures under construction.	M/J '48 p12
Looking southeasterly between the two Salsipuedes structures.	M/J '48 p13
View from under the structures.	M/J '48 p13

GRADE SEPARATIONS, Continued

GRADE SEPARATIONS, Continued	
Santa Clara Co.	
Bascom AveWashington St. Interchange on I-880 [Rt. 17], San Jose.	J/A '60 p13
El Camino Real Underpass (US 101, Palo Alto).	
Gov. Olson, City Engineer Harold L. Anderson, and Palo Alto Mayor	
J. Byron Blois on horseback for dedication parade.	Mar '41 p4
Completed structure.	Mar '41 p5
Embarcadero Underpass, Palo Alto.	
Official group at dedication.	F '37 p22
Wide subway for Embarcadero lateral swinging down to underpass	•
with pedestrian ramps on either side.	F '37 p23
Structure carrying railroad and Alma Street over the subway.	F '37 p23
Crowd at speakers' stand, high school band at dedication.	F '37 p23
I-280/I-880 [Rt. 17] grade separation northeast of San Jose.	N/D '65 p80
McKee Rd. Interchange east of San Jose. (US 101) [US 101-By]	M/A '57 p6
Oregon expressway interchange on Bayshore Fwy. (US 101).	M/J '65 p39
Polhumus St. crossing in San Jose before improvement.	N '40 p20
New Polhumus St. underpass.	N '40 p21
Rt. 17 Interchange in Los Gatos.	J/A '60 p13
University Ave. grade separation in Palo Alto, model of.	D '39 p23
General view and close-up of Underpass beneath SP railroad.	Mar '41 p5
US 101/I-880 [Rt. 17] Interchange near San Jose.	J/A '60 p12+
Under construction	M/A '60 p20
Santa Cruz Co.	M/A 00 p20
	M/A '50 m14
Morrissey Ave. interchange in Santa Cruz connecting Rt. 17 and Rt. 1.	M/A '59 p14
N. Aptos underpass.	N/D '48 p12
Pasatiempo Interchange. (Rt. 17).	M/A '60 p30
Soquel Rd. overcrossing.	N/D '48 p12
Spreckles Dr. undercrossing.	N/D '48 p12
Shasta Co.	I/E 465 20
Bowman Rd. Interchange, precast, prestressed concrete girder being installed at.	J/F '65 p38
I-5 [US 99]; 4-lane subway with 8-ft division strip near Redding. Jun '39 p21;	S '39 p12
Old subway it replaced on I-5 [US 99] near Redding.	Jun '39 p20
Siskiyou Co.	T/1 / 10 10
Bailey Hill Underpass under construction.	J/A '48 p12
Old narrow underpass which was replaced by Bailey Hill Underpass.	J/A '48 p13
Looking across barrel of Bailey Hill Underpass.	J/A '48 p13
Completed Bailey Hill Railroad Underpass.	M/A '49 p56
Old narrow underpass; replacement underpass (I-5) [US 99].	J/F '50 p12
Solano Co.	
Bassalt Subway, being christened by wife of George T. McCoy.	M/A '45 p20
Davis-Dixon cut-off; 4-lane divided underpass on I-80 [US 40] where SP RR	
crosses the highway.	O '42 p12
Grade separation carrying Dixon-Grant Rd. traffic over I-80.	J/F '65 p52
At grade intersection adjacent to UC Davis campus before improvement.	J/F '65 p52
I-780/I-80 [Rt. 74/US 40] intersection being eliminated by overcrossing,	
shown under construction.	S/O '57 p63
I-780 [Rt. 74] separation and Benicia Rd. Overcrossing after freeway.	J/A '61 p25
Laurel St. separation structure under construction (Vallejo, I-80).	J/A '58 p16
Magazine St. Overhead in Vallejo.	N/D '56 p37
Official party at ribbon-cutting ceremony for Magazine St. Overpass.	N/D '56 p37
Pedrick Rd. overcrossing near Dixon (I-80), substructure of.	J/F '65 p51
	•

GRADE SEPARATIONS, Continued Sonoma Co. Rt. 104 separation and overhead under construction. M/J '55 p8 Three level interchange of US 101/Rt. 12 in Santa Rosa. M/J '64 p48 Turlock grade crossing overpass (Rt. 99/main line railroad tracks) Under construction. N '39 p25 Unique design of placing girders normal to the piers of skew curve. N '39 p25 Laying reinforcing steel on bridge deck. N '39 p25 View of Turlock grade crossing overpass. Apr '40 p14 Ribbon cutting ceremony at dedication of Turlock overpass. Apr '40 p15 Tulare Co.; Visalia Airport Interchange on Rt. 99 through the city. S/O '58 p35 Ventura Co. Camarillo Overhead under construction. S/O '53 p23 Partially completed grade separation structure at Saviers Rd. M/J '55 p60 East Marysville Underpass on Rt. 20 (12th St.). J/F '65 p55 J/F '65 p56 Old East Marysville Underpass shortly after construction in 1911. HIGHWAY PLANNING AND DESIGN Driving simulator device used to test driver's reaction. M/A '61 p79 **Highway Planning Survey** Curvometer attachment on steering wheel of survey car used to measure curvature of highway. Jul '37 p8 Supermeter mounted on car dash to measure superelevation and gradeometer mounted on door to measure percent of grade. Jul '37 p8 Sight distance survey party measuring gradient, taking measurement of limited sight distance on vertical curve, measuring limited sight distance on horizontal curve, and measuring curvature and superelevation. Jul '37 p9 Joint Fact-Finding committee on Highways, Streets and Bridges Members of, group photo. N/D '45 p31 S/O '46 p1 G. Donald Kennedy, engineering consultant for fact-finding committee. S/O '46 p4 Sen. R. Collier Burns and G. T. McCov of fact-finding committee. George T. McCoy and Fred J. Grumm with fact-finding committee. J/F '46 p20 Kelsh plotter with "Auto-trol" digital scale used for taking terrain cross sections and recording directly on punch cards. N/D '64 p42 LARTS (Los Angeles Regional Transportation Study)--See TRAFFIC Photogrammetry (Aerial Photography) Aerial photo showing patterns of land use. N/D '51 p25 Vertical aerial photo used to produce contour map. N/D '51 p26 Vertical aerial photo and corresponding portion of detailed map which was plotted and drawn directly from the aerial photo. M/A '56 p33 Contact prints at some of the scales used for planning and location studies. N/D '56 p24 Several possible highway locations noted on aerial photo mosaic for a public presentation of route studies. N/D '56 p24 N/D '56 p27 Pair of overlapping, vertical aerial photos used for mapping a portion of a project. Photgrammetrist operating stereo-plotter. M/J '59 p15 Contour map made from aerial photography. M/J '59 p15 Paint transfer device used in the operation of photogrammetric control bridging. N/D '65 p40

Planning officials and County Road Commissioner studying routes on map. Models of freeways constructed so that geometrics of traffic service, physical

studied during design of project.

relationship to adjacent property, highway safety and aesthetic impact may be

N/D '64 p43

N/D '66 p21

HISTORIC LANDMARKS & MONUMENTS

INSTORIC LANDWARKS & MONUMENTS	
Amador Co.; Hetty Green Mine on Rt. 49 (Mother Lode Hwy.)	S/O '45p5
Humboldt Co.; Culbert L. Olson Grove, US 101 (Redwood Hwy.)	
Gov. Olson speaking to assemblage at dedication of.	Jul '40 p18 C
Kern Co.; Garces Circle, Bakersfield	
Statue of Frey Francisco Hermenegildo Garces.	J/A '46 p18
Statue of Father Garces in center of Rt. 99 traffic circle.	J/A '46 p18
Statue of Father Garces being moved.	M/A '57 p57
Los Angeles Co.	
Adobe residence of Pio Pico, last governor of California under Mexican rule.	J/A '64 p37
Ft. Tejon State Historical Park.	S/O '65 p30
Ralphs ranch house at Gorman Station, 1913.	S/O '65 p20
Ralphs ranch house overlooking I-5, 1965.	S/O '65 p31
Gorman schoolhouse in 1913.	S/O '65 p21
Monument erected at Shell Oil Company's Alamitos No. 1, Long Beach.	S/O '66 p22
Missions	N. 1. 1. 1. 1. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.
Carmel Mission.	M/J '66 p39
Doloressee San Francisco de Assisi	
La Purisima Concepcion	N # /T 4 4 7 1 0
Fountain replacing original built by founders of the mission.	M/J '45 p18
Ruins of mission before restoration work.	M/J '45 p18
Restored exterior, Mission La Purisima Concepcion.	M/J '45 p18
La Purisima Mission bell tower.	M/J '66 p17
San Antonio de Padua in early days of its decay. Remains of Mission San Antonio de Padua ca. 1945.	J/A '45 p15
	J/A '45 p15
Bell of Mission San Antonio still in tower.	J/A '45 p29
San Buenaventura, restored facade.	M/A '45 p10
Ruins of aqueduct project at the mission. Entrance to Mission San Buenaventura.	M/A '45 p11 M/A '45 p12
San Carlos Borromeo, as seen from courtyard.	N/D '45 p30
San Diego de Alcala, cross marking original site of.	S/O '44 p5
Courtyard in Mission San Diego de Alcala showing ancient walls.	S/O '44 p5 S/O '44 p5
Exterior of Mission San Diego de Alcala showing restored tower.	S/O '44 p5 S/O '44 p6
San Fernando Rey de Espana, facade.	J/F '45 p12
Arches with columns of San Fernando's arcade.	J/F '45 p11
Old walls of mission before restoration [ca. 1930s].	J/F '45 p12
Mission San Fernando, fountain and gardens.	J/F '45 p13
San Francisco de Assisi [now Mission Dolores] exterior ca. 1946.	M/A '46 p19
Chapel structure before restoration.	M/A '46 p18
San Francisco Solano, restored exterior.	M/J '46 p17
Old mission bell at entrance to Solano Mission.	M/J '46 p19
San Gabriel Arcangel, restored exterior.	J/F '45 p9
Ancient grape arbor of San Gabriel Arcangel.	J/F '45 p9
Old Mission bells of San Gabriel Arcangel.	J/F '45 p10
San Jose de Guadalupe, old etching of.	M/A '46 p15
Mission San Jose de Guadalupe after restoration.	M/A '46 p16
Vine-covered arbor entrance to San Jose de Guadalupe.	M/A '46 p17
San Juan Bautista, exterior of.	N/D '45 p27
Mission San Juan Bautista from spot on gardens.	N/D '45 p28
San Juan Capistrano exterior, showing garden and fountains.	N/D '44 p9
Ruins of original mission, destroyed by earthquake in 1812.	N/D '44 p9
Interior of chapel at Mission San Juan Capistrano.	N/D '44 p21
Courtyard of Mission San Juan Capistrano showing old mission bells.	N/D '44 p21
	•

HISTORIC LANDMARKS & MONUMENTS, Continued San Luis Obispo de Tolosa, exterior. J/A '45 p12 Ancient doorway of Mission San Luis Obispo de Tolosa. J/A '45 p13 San Luis Rey de Francia Exterior, on which considerable restoration work has been done. N/D '44 p7 Courtyard of Mission San Luis Rey de Francia. N/D '44 p8 San Luis Rey de Francia near Oceanside. M/J '66 p18 San Miguel Archangel, restored exterior. S/O '45 p16 Restored chapel of Mission San Miguel. S/O '45 p17 Gardens at Mission San Miguel. S/O '45 p18 San Rafael Archangel, wash drawing of. M/J '46 p15 Church which stands on the original site of mission in San Rafael. M/J '46 p16 M/A '45 p13 Santa Barbara, exterior. M/A '45 p13 Gardens of Mission Santa Barbara. M/A '45 p30 Fountain in front of Mission Santa Barbara. Franciscan Padres-garbed visitor guide at. M/J '66 p17 Santa Clara de Assisi, old etching of. J/F '46 p11 Church which, along with University of Santa Clara, occupies site of original Mission Santa Clara de Assisi. J/F '46 p12 Portion of the ancient adobe walls of Mission Santa Clara. J/F '46 p13 Olive tree planted by padres when Mission Santa Clara was founded. J/F '46 p14 J/F '46 p8 Santa Cruz, old etching of. J/F '46 p9 Old Mission Church, erected on site of old Mission Santa Cruz. Historical marker designates site of Mission Santa Cruz. J/F '46 p10 Santa Inez, restored exterior. M/J '45 p15 Chapel of Mission Santa Inez. M/J '45 p16 Archer along corridor, Mission Santa Inez. M/J '45 p17 Soledad, ruins of ca. 1931, and ca. 1945. S/O '45 p19 Monterey Co. Kitchen of Stevenson House, Monterey State Historical Monument. M/J '66 p38 Nevada Co.; Pioneer [Donner] Monument. M/J '46 p5 Gov. Emmett Boyle (Nevada), Gov. William D. Stephens (California), and surviving members of Donner Party at 1918 dedication of monument. M/J '46 p6 Riverside Co. False epitaph on boulder along I-215 [US 395] near Temecula. J/F '49 p33 Temecula; adobe where treaty was signed with [Cocomcahra] Indians in 1852. J/A '51 p6 Plaque placed on building by California Centennials Commission. J/A '51 p6 San Bernadino Co.; "Madonna of the Trail" monument on Old Emigrant Trail. S/O '50 p39 San Luis Obispo Co.; Sen. Elmer S. Rigdon monument Gov. Merriam placing wreath on monument at dedication. Jul '37 p3 Santa Barbara Co. Fremont-Foxen Monument, San Marcos (Gaviota) Pass Inscription on Fremont-Foxen monument. S/O '50 p43 Monument at grave of Foxen. S/O '50 p43 Fremont and Foxen descendants at Fremont-Foxen memorial monument. S/O '50 p43 Solano Co. Benicia, historic former State Capitol Gov. and Mrs. Goodwin J. Knight with State Park Commissioner in period dress at dedication of restored State Capitol, Benicia. M/J '58 p26 Visitors outside the restored Capitol at Benicia. M/J '58 p28 Site of Pena Adobe adjacent to I-80 near Vacaville, built in 1842. J/F '65 p50 S '41 p19 Tuolumne Co.; gold discovery monument near Jamestown (Rt. 108) [Rt. 13].

HISTORY: PEOPLE, PLACES, & EVENTS

Alameda Co.; historic Sather Gate entrance to UC Berkeley.	M/J '66 p35
Del Norte Co.; Crescent City, 1855.	M/J '64 p3
Humboldt Co.; Eureka in 1910.	M/J '64 p11
Inyo Co.	111/0 0 PII
Panamint City, showing ruins of kilns.	J/F '51 p20
Ballarat ghost town and "Seldom Seen Slim," prospector and only inhabitant.	J/F '51 p20
Los Angeles Co.	0/1 31 p20
Long Beach bathing beach and amusement area, 1923.	S/O '66 p24
Long Beach Harbor area showing pipes for dredging operations, 1926.	S/O '66 p24
Newbury Park Stage Station in 1887.	J/A '50 p29
Uncle Sam's Camel Train, which once traveled through San Fernando	0/11 00 p25
[Fremont] Pass, drawing of.	S/O '54 p37
Mendocino; 19th century structures.	M/J '66 p6
Mono Co.; Ghost town of Bodie.	M/J '66 p29
Placer Co.; Gold Rush-era buildings in town of Dutch Flat.	M/J '66 p44
Riverside Co.	ти оор
Old adobe depot of Butterfield Overland Stage at Temecula, converted	
to grain storage warehouse.	J/F '49 p34
Granite curb stone remnant serving as ranch fence post, Temecula.	J/F '49 p54
San Benito Co.	0/1 .5 pc .
Ancient pepper tree in garden of one of San Juan Bautista's old buildings.	M/J '66 p38
Silver nameplate of Angelo Zanetta on Zanetta House, San Juan Bautista.	M/J '66 p38
San Bernardino Co.; Cajon Pass lower toll house just north of Blue cut ca 1870s.	M/J '53 p7
San Diego Co.	т.
Hotel del Coronado.	M/J '66 p20
Old adobe stage station at Warner's Ranch.	S/O '50 p47
"Old Spanish Lighthouse" at Point Loma, built in the 1850s.	M/J '66 p19
Towers of 1915 Exposition at San Diego's Balboa Park.	M/J '66 p21
Santa Barbara Co.; restored Sisquoc church.	S/O '50 p43
Shasta Co. Court House; Whiskeytown Hotel at Schilling, built in 1852.	N/D '47 p6
Siskiyou Co.; Henley [formerly Cottonwood] stage station, site of	J/F '50 p13
Sonoma Co.; California Northwestern Railroad Station at Sebastopol, early 1900s.	M/J '64 p8
Transportation methods, Redwood Hwy. 19th centuryearly 20th century	•
Eight-horse team and double freight wagon in Del Norte Co. ca 1900.	M/J '64 p5
Four-horse team and stage coach at Old Shasta, 1912.	M/J '64 p5
Horse team towing Model T across Eel Rvr. from Scotia to Rio Dell, early 1900s.	M/J '64 p2
Light stagecoach and surrey on Redwood Hwy. between McDonald and Hopland	
in southern Mendocino Co., 1900s.	M/J '64 p7
Line drawing from photograph of Pacific Lumber Co.'s railroad between Scotia	
and Alton, ca. 1890.	M/J '64 p4
Pack train making up for trip from Humboldt Bay into Hoopa Valley ca. 1880.	M/J '64 p4
Orick (Humboldt Co.) ca. 1925 showing motorized "stage" which ran between	
Crescent City and Eureka.	J/A '64 p30
Damaged car on road, early 1930s.	J/A '64 p24
Trinity Co.	
Restored chapel at Ft. Ross State historical park.	M/J '66 p6
Joss House in Weaverville; Alter at Joss House.	M/J '66 p10
Gold Rush-era buildings with outside spiral staircases, Weaverville.	M/J '66 p10
Yolo Co.; steam engine put on permanent display	
Moving steam engine across highway	M/J '57 p38
Final repose in Yolo Co. Fairgrounds; Driving Golden Spike.	M/J '57 p39

INFORMATIONAL SERVICES

INFORMATIONAL SERVICES	
Exhibits by Division of Highways	
California State Fair S/O '47 p26;	S/O '61 p72
Division of Highways publications exhibit on display at State Library.	J/A '62 p55
"Freeways For You" display, 1959.	N/D '59 p46
Highway progress model displayed on Treasure Island.	Apr '39 p10+
National Highway Week exhibits.	M/J '62 i.cvr.
Display in front window of store in Bishop for National Hwy. Week.	J/A '63 p44
National Highway Week exhibit at LAX.	J/A '63 p42
Freeway exhibit on display in San Luis Obispo Public Library.	J/A '63 p43
National Orange Show (San Bernadino) exhibit at.	M/A '47 p16+
Pasadena's Diamond Jubilee celebration, exhibits on display during.	J/A '61 p66
Sacramento freeways model on display at State Capitol.	M/A '64 p59
Scale models of freeway interchanges and other structures planned for	
Sacramento area and San Mateo Co. on exhibit at 1964 State Fair.	N/D '64 p62
Winter Sports Fair in San Francisco exhibit.	N/D '65 p62
Films/Television	
Station KTTV producer Roy Maypole interviewing Resident Engineer Haig	
Ayanion for "Sidewalk Superintendent" television program.	M/J '52 p19
Vacuum cleaner machine being filmed for television.	M/J '52 p25
Public Relations	
Boy Scouts distributing leaflets regarding freeway construction.	S/O '64 p42+
Flagman handing motorists a leaflet explaining reasons for traffic delay.	N/D '61 p62
LANDSCAPE & LANDSCAPE MAINTENANCE Bay Bridge Approaches, I-80 [East Shore Hwy.] Before: dredged sand fill between east end of bridgetoll plaza;	
after: ice-plant ground cover on bay side and center strip.	D '39 p19
Cypress Ave. approach before/after appropriate plantings	D '39 p19
Dumps and industrial district screened by tree planting.	D '39 p17
Evergreen trees and lawn shrubs at 5th St. Plaza approach, S.F.	D '39 P19
Ice-plant ground cover along Berkeley Aquatic Park.	D '39 p18
Improved roadside appearance due to tree and shrub plantings.	D '39 p18
Former wagon track road following natural landscape ca. 1912-1915.	J/F '61 p3
Freeways Landscaping, general	3/1 01 p3
Landscaping separating roadway from residential area.	N/D '66 p22
Mature landscaping N/D '61 p13;	J/A '63 p4
New section to be planted being checked against plans	M/A '61 p45
Highway maintenance station with landscaped grounds, Oceanside.	Jan '38 p22
Humboldt Co.; Lupineseed plantings	· · · · · · · · · · · · · · · · · · ·
Close-up of Lupine seeds.	S/O '66 p37
John Brown, Sr., Dist. 1's "Johnny Lupineseed."	S/O '66 p37
Lupine growing along roadside of US 101 near Eureka.	S/O '66 p37
Iceplant cuttings being made on piecework basis.	M/A '61 p47
Crew planting iceplant cuttings in median of Santa Ana Fwy near Tustin.	M/A '61 p47
Soil kept in place with ice plant and natural grasses.	S/O '53 p30
Interchanges, landscaping and	1
Alameda Co.; 1-880 [Rt. 17] interchange near Hayward.	N/D '64 p46
Four-level interchange, Los Angeles. M/A '64 p23;	J/F '67 p6
Glendale-Golden State Fwy. Interchange.	J/F '67 p7
HarborSanta Monica Fwy. Interchange planted in 1962.	J/F '67 p6
Landscape architects discussing planting of interchange.	M/A '61 p40

I ANDCCADE O I ANDCCADE MAINTENIANCE C. C.	
LANDSCAPE & LANDSCAPE MAINTENANCE, Continued	3.5/5./54 =0
San Bernadino Fwy. (I-10) landscaped interchange	M/J '61 p73
San Diego Fwy., donated palm tree being planted	J/F '65 p59
San Diego; I-5/Rt. 163 [US 395] four-level interchange.	N/D '64 p14
Santa AnaLong Beach Fwy. interchange. M/A '61 p45;	N/D '64 p46
Sonoma Co.; redwoods planted at US 101 interchange, Santa Rosa.	S/O '64 p14
Kern Co.; landscaped US 99 on-ramp	J/A '61 p34
Litter RemovalSee also EQUIPMENT	
Litter on roadside next to "Unlawful to Dispose of Litter" sign.	N/D '61 p23
Rotary sweeper cleaning gutters on Bayshore Fwy. in San Mateo Co.	N/D '65 p23
Street sweepers: weed and brush flail; Rotary flail in operation.	M/J '55 p31
Vacuum cleaner; trash on roadside on Rt. 1 between 7th St. and Anaheim St.	
in Long Beach, before/ after vacuuming operations	N/D'51 p46
Los Angeles Co.	•
Arroyo Seco Parkway (Rt 110)	
Marmion Br. section before and after planting.	N/D '44 p25
Orange Grove Ave. section before, during, after planting	J/F '45 p22+
Prospect Ave. overhead section before and after landscaping.	J/F '45 p24
Retaining walls built around existing native sycamores.	M/A '61 P46
slope and center divider plantings.	D'40 p14, 15
Golden State Fwy. (I-5) [US 99]; Landscaped section in Griffith Park.	N/D '62 p66
Group looking over landscape plans.	J/F '65 p59
Harbor Fwy (I-110) landscaping between business and.	M/A '64 p24
Landscaped section planted in the mid-1950s.	J/F '67 p5
Hollywood Fwy. (US 101) [Cahuenga Pass Fwy]	3/1 0/ p3
	I/E '67 m7
Landscaped section near Glendale Blvd.	J/F '67 p7
Landscaped section through Cahuenga Pass.	M/J '65 p39
Pilgrimage Br. section before and after landscaping.	N/D '44 p24
Slope control in Cahuenga Pass section.	M/A '61 p46
Mr. O. Henry Jr. of W. Federal S&L Assoc., Panorama City with	I/E (((42
Girl Scouts and one of eucalyptus trees donated by the S&L.	J/F '66 p43
Rt. 134 [Colorado Fwy.]; landscaped section near Pasadena.	N/D '62 p12
San Bernadino Fwy. (I-10); landscaped section near Covina.	J/F '61 p9
San Diego Fwy. (I-405)	
L.A. area Girl Scouts planting pines on cut slopes.	J/F '66 p43
Palm tree being transported down PCH to San Diego Fwy.	J/F '65 p59
Plantings along retaining wall	M/A '61 p44
Vincent Thomas Br. in San Pedro, landscaped approach.	J/F '67 p4
Maintenance of Landscaping	
Maintenance truck watering oleanders along median strip.	J/A '60 p46
Replacing a dead roadside plant.	M/J '61 p72
Trimming median with power equipment.	M/J '61 p71
Trimming overhanging foliage from tree along highway.	N/D '62 p26
Weeding roadside while watering basin around young plant fills.	M/J '61 p70
Marin Co., US 101; Waldo Grade after widening ca. 1955 and ca. 1965,	
showing growth of natural vegetation and planted landscaping.	M/J '65 i.cvr
Mariposa Co.; Redbud plantings	
Redbud seedlings awaiting planting on Rt. 140.	J/F '66 p34
Gov. Edmund Brown, William Brady (promoter of redbud planting	-
effort) and official party at first redbud planting ceremony.	J/F '66 p34
Brady preparing soil for first redbud planting.	J/F '66 p34
• • •	*

LANDSCAPE & LANDSCAPE MAINTENANCE, Continued

LANDSCAPE & LANDSCAPE MAINTENANCE, Continued	
Modesto Co.	
Crane lowering olive tree into new home at Kansas Ave. interchange	S/O '65 p46
Shade trees salvaged from I-5 construction.	S/O '65 p46
Transplanted palm.	S/O '65 p47
Monterey Co.; Carmel Bay as seen from Rt. 1, with Monterey Pine and	0/0//// 10
Cypress planted in the 1930s.	S/O '66 p10
Orange Co.; Costa Mesa business street beautified by local citizens.	May '41 p9
Outdoor Advertising; samples of permissible copy for advertising signs.	May '38 p13
Placer Co.; Roseville; neatly trimmed section of I-80.	M/J '61 p70
Riverside; Palms transplanted on Riverside Fwy. (Rt. 91)	M/J '59 p35+
Roadside Vegetation, Control of	NA/A 670 70
Brush Cutters/Choppers being demonstrated in Washington DC	M/A '50 p58
Chopper drawing brush into hopper; material being expelled.	S/O '51 p23
Chips and shavings after expulsion.	S/O '51 p23
Cutter making a first pass at the bank.	M/A '50 p58
Feeding trees into chopper.	S/O '51 p22
High slopes cleared of bulging growth with mower.	M/A '50 p59
Newly developed cutter trimming ice plant along roadside.	M/J '65 p61
Slope before and after mowing brush treatment.	M/A '50 p59
Fire hazard potential	NA/I (40 - 5
Burning oil-sprayed roadside growth.	M/J '43 p5
Disking roadside areas beyond ditchline to establish firebreak.	M/J '43 p4
Dry vegetation means that fire hazard is high.	M/A '50 p38
Firebreak behind guard rail.	S/O '46 p7
Firebreaks	S/O '46 p6+
Fire-hazard-control strip formed by "spray and burn" method.	M/A '50 p38 M/A '50 p39
Fire-hazard-control strip formed by the soil sterilization method.	M/J '43 p3
Mowing tall, dry growth, thus reducing fire hazard.	M/J 43 p3
Roadside planting of Mesembryanthemum edule effectively controls weeds and reduces fire hazard.	M/A '50 p36
Spraying roadside slope with diesel oil prior to burning.	M/J '43 p3
Spray proportioner in operation; Rear view of spray proportioner.	M/J '65 p62
Weed Eradication	M/J 03 p02
Results of seasonal application at beginning of second season.	M/A '51 p26
Soil sterilization application north of San Bernadino.	M/A '51 p20 M/A '51 p27
Soil stabilization as means of on Creek City highway.	M/A '51 p26
Sacramento Co.	1 41 /71 31 p20
Improved swimming area at Granite Bay.	S/O '60 p61
Improved swimming area at Beals Point.	S/O '60 p62
Mormon Island section of Folsom Lake State Park.	S/O '60 i.cvr
M St. Bridge approach improved with tree/shrub planting.	S '39 p18
N. Sacramento Fwy. [US 40-99E] before and after landscaping.	J/F '59 p55
San Benito Co.; US 101/Rt. 156 [Rt. 22] junction [Prunedale Cut-off]	0/1 35 pss
Campanile and surrounding roadside beautification efforts	Jan '38 p6, 7
Cross, surrounded by adobe walls.	Jan '38 p8
San Bernadino Co.; Joshua Tree on I-40 [US 66]	S/O '50 p107
San Diego; Cabrillo Fwy. (Rt. 163) [US 395]	2, 2 2 P 2 1
Palm trees salvage during construction operations	M/A '61 p63
Salvaging palm trees from median strip.	S/O '60 p16
Transplanted palms salvaged from right-of-way.	M/A '61 P42:
San Francisco; Bayshore Fwy. (US 101), landscaped section.	N/D '61 i.cvr
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

LANDSCAPE & LANDSCAPE MAINTENANCE, Continued

LANDSCAPE & LANDSCAPE MIAINTENANCE, Cont	ınued	
San Luis Obispo, US 101		
Dense growth of drought resistant plants.		M/J '61 p70
Landscaped section through San Luis Obispo.	M/A '61 p43;	S/O '66 p10
Santa Barbara; tree lined, winding section of US 101 ca. 1920s.		J/F '61 p7
Santa Cruz; Roadside planting treatment on section of Rt. 1.		J/F '61 p8
Seedlings for use in freeway landscaping being transplanted.		N/D '62 p65
Sierra Nevada, I-80		•
Dike and cleared area outside it on Sierra Nevada section.		M/J '61 p70
Sierra Nevada road [unidentified], 1941.		J/F '61 p9
Slope Rounding, before and after views [unidentified locale]		S '39 p19
Scraper and bulldozer rounding and leveling top cut of slope.		S '39 p20
Trees		5 57 p20
Black walnut trees on "Winters-Davisville Rd." in 1905 and 1961.		J/F '61 p2
Building detour through orange grove and protected trees.		Jun '37 p23
		S/O '48 p36
Eucalyptus planting		
Joshua trees and sparse undergrowth in southeast section of state.		N/D '49 p37
Joshua trees north of Cajon Pass (San Bernardino Co.).		M/J '52 p5
Mexican fan palm roadside tree planting in Riverside ca. 1930.		J/F '61 p6
Native California sycamore trees planted along roadside of San		T (10 1 6
JoseOakland highway.		F '43 p16
Oak trees on highway in Monterey Co. being protected from erosion	1.	Aug '37 p23
Palms being planted on Redlands Fwy. (I-10).		S/O '62 p11
Palo Verde trees growing on Rt. 86 [US 99] in Imperial Valley.		J/A '61 p38
Parkinsonia trees planted along roadway between Victorville and B	arstow.	S/O '65 p16
Redwood tree on Redwood Hwy. (US 101), Humboldt Co.		S/O '45 p2
Redwood trees and luxuriant undergrowth near Dyerville, Humbold	t Co.	N/D '49 p37
Coast redwoods and ferns at Prairie Creek Redwoods State Park.		M/J '66 p4
Clump of redwoods containing world's tallest tree, discovered in 19	963.	M/J '66 p4
Safety line technique demonstrated by tree maintenance crews.		M/J '61 p69
Scotch pine seedlings in flats in state nursery.		J/A '61 p35
San Bernadino Co.; Rt. 18 [Rt. 43], Panorama Pt. after 1929 fire		O '37 p20
Native shrubs and trees on I-15 near Halloran Summit.		S/O '65 p16
Natural beauty of area restored after tree planting.		O '37 p20
Tree doctors at work.		F '43 p17
Tree trimming		1
Clearance restricted roadside trees before/after trimming.		Jan '42 p3
Eucalyptus trees on highway before and after top work.		Jan '42 p4
Improved saw handle; improved saw handle in operation.		M/J '46 p12
Increased vision on highway curve due to tree trimming.		Jan '42 p28
Operations underway on US 101 south of Camarillo, Ventura C	·0	M/J '46 p12
Palm trees lining highway before and after trimming.		Jan '42 p3
Power-Driven tree cutting equipment., demonstration of.		J/A '46 p30
Trees planted along Rt. 99 near Wheeler Ridge(Kern Co.), ca. 1922		J/F '61 p5
Urban Renewal; Los Angeles	•	5/1 O1 p5
Dilapidated building in Bunker Hill section		S/O '61 p38
Model of planned Bunker Hill Redevelopment Project.		S/O '61 p39
Yolo Co., I-80; trees, shrubs planted at bridge approaches	S/O '53 p29;	M/A '61 p46
1 010 Co., 1-00, trees, silituos pianteu at bridge approaches	5/0 33 p29,	1VI/A 01 p40

LEGISLATION	
BATSC; Gov. Edmund Brown signing BATSC bill. Collier-Burns Hwy. Act. being signed by Gov. Warren as Legislative members look on.	J/A '65 p38 J/A '47 p2
Secretary of State Frank M. Jordan poses with new officials of the Dept. of Water Resources before swearing them in. SCR 62 Report on county and city street deficiencies	J/A '56 p71
Members of Technical Advisory Committee. S/O '58 p3; Presentation of SCR 29 freeway report to the Joint Interim Committee.	N/D '60 p49 S/O '58 p1
Smog; Gov. Edmund Brown signing key piece of auto smog legislation.	S/O '66 p17
LITIGATION/LEGAL	
Access rights; parcel of land between Arbuckle and Williams on I-5 [Rt. 99W] involved in access rights litigation in Colusa Co.	M/A '49 p10+
Gold-bearing potential case	
Equipment stuck in mud.	M/A '55 p44
Jib operating sluice box. Materials Dept. personnel using air hoist, handling the bucket line.	M/A '55 p45 M/A '55 p45
Engineer Erich and Atty. John Horgan riding "commuters' special" across river.	M/A '55 p45
Operations in full swing; Caissons at job site.	M/A '55 p47
Freeway-related cases	1
Holloway v. Purcell	
I-80 [US 40] near Sacramento, center of <i>Holloway v. Purcell</i> freeway case. <i>People v. Horsford</i>	S/O '64 p56
Intersection at Ash St. and 10th Ave., San Diego indicating portion	7/7/40 05
along which access rights were acquired in <i>People v. Horsford</i> .	J/F '49 p35
Corner of 10th & Ash Streets, San Diego, before construction of motel.	M/J '51 p40
Same corner after construction of motel. Scale model built for right-of-way property case.	M/J '51 p40+ N/D '66 p30
Scale infodel bank for right of way property case.	17/D 00 p30
MAINTENANCESee also SNOW; EQUIPMENT; LANDSCAPE & LANDSCAPE	MAINT.
Maintenance Department	D (27 m24
Maintenance Dept. personnel, group photo. Maintenance Dept. executives, group photo 1942.	D '37 p24 Mar '42 p13
Maintenance crew beginning work on section of Bayshore Fwy in S.F.	J/A '60 p45
Maintenance stationsSee also SNOW	3/11 00 p43
Maintenance station in N. Hollywood near US 101 (Ventura Fwy.).	N/D '60 p17
Maintenance station with landscaped grounds, Oceanside.	Jan '38 p22
All American Canal maintenance station and yard on old section of I-8 [US 80].	J/A '61 p17
Lassen Co.; US 395 [Rt. 73] looking toward Secret Valley maintenance station.	S/O '46 p13
Maintenance work on overhead light, US 50 east of Sacramento.	J/A '60 p44
Patching pavement on Rt. 99 [US 99E] near Chico.	N/D '61 p24
Patching section of I-880 [Nimitz Fwy.] in Alameda Co.	N/D '65 p21
Radio telephone installation in maintenance truck. Removing debris from an overturned truck on a freeway.	S/O '50 p157 J/A '61 p54 [
Repairing chain link fence along I-405, San Diego Fwy. in Los Angeles.	M/J '65 p39
Replacing section of fence on median.	J/A '61 p55
Slide removal operations using bulldozer (Dist. 7)	J/A '61 p53 [
Using giraffe and personal hoist to make freeway sign repairs.	N/D '65 p24
Using personal hoist to service highway lighting.	N/D '65 p24

MOTOR VEHICLES

MOTOR VEHICLES	
Driver Opinion Study	
Highway Transpiration Agency administrator, California Traffic Safety	
Foundation executive vice president, and Standard Oil Co. president H.G.	
Vesper, with check for grant to conduct special driver opinion survey.	S/O '64 p67
New automobile being transported by train.	J/F '67 p21
Smog-control	
Chrysler Cleaner Air Package engine.	S/O '66 p15
Special committee on vehicle pollution control inspecting emission testing	
equipment at Detroit auto plant.	S/O '66 p16
Truck turns on short-radius curves, testing for	
Apparatus used for marking race on pavement in use on front overhang	
of bus, and rear wheel of trailer.	M/A '50 p14
Tractor-truck, semi-trailer, and trailer; Truck and trailer.	M/A '50 p15
Tractor-truck and semi-trailer; Two axle bus.	M/A '50 p15
Extensible semi-trailer used in making tests on extra length vehicle.	M/A '50 p30
Rear axle assembly of mono-trailer.	M/A '50 p30
Truck usage, increase of during WWII	
Double-trailer truck on highway.	J/A '43 p2
Cement in large metal tanks being hauled by truck.	J/A '43 p3
Truck and trailer combination hauling gasoline.	J/A '43 p4
Agricultural products being moved by truck and trailer.	J/A '43 p4
Truckloads of hay.	J/A '43 p5
Fully-loaded trucks on highway.	J/A '43 p18
Types of heavy vehicles using California highways.	S '38 p14+
Weight-Weigh stations CUD trust goales in energian man L 5/Dt 126 interchange	S/O '65 m22
CHP truck scales in operation near I-5/Rt. 126 interchange. Coyote scale, Santa Clara Co., with truck on scale and two vehicles preparing	S/O '65 p23
to unload portion of excess load.	N/D '47 p2+
Equalizing beam and load-o-meters in place in concrete load-o-meter pit.	M/J '45 p1
Weighing third axle of gasoline transport combination.	M/J '45 p2
Weighing first axle of butane gas transport combination.	M/J '45 p2
Measuring length of tank truck and scale at Hercules scale.	N/D '47 p5
Officials checking weight of large truck and trailer equipment on highway.	N '41 p5
Pavement damaged by overweight loads.	J/F '55 p10+
Truck in midst of unidentified collapsed bridge span.	J/F '55 p13
Truck-trailer combination being checked for gross weight and overall	3/1 33 p13
length at Carquinez Br. scale.	N/D '47 p4
Freight truck and trailer being measured at Carquinez Br.	N/D '47 p5
Truck weighing station on I-5 [US 99] near Wheeler Ridge in Kern Co.	N/D '61 p24
Weighing and brake testing station near Ft. Tejon. (Kern Co.)	Mar '38 p24
Roadway protected by guard rail provided for brake testing runway.	Mar '38 p24
Close-up view of scale house.	Mar '38 p24
	•
NATIVE AMEDICANO	
NATIVE AMERICANS	
Armer, Laura Adams, famed artist and writer, poses before ancient petroglyphs	NA/A 450 50
found on rocks near historic Walker Pass Rd. in Kern Co.	M/A '52 p50
Chumash in authentic costumes at Simi Valley Fwy. ground-breaking celebration.	S/O '66 p30
Early "Wickiyup" at Mono Pass. Morongo Braves baseball team in uniform.	S/O '50 p90
	J/A '49 p60 J/A '49 p39
Lulu Martin, official scorekeeper for Morongo Braves.	J/A 49 p39

NATUDAL DICACTEDO	
NATURAL DISASTERSSee also FLOODING	
Boulders blocking Rt. 178 [Rt. 57] (Inyo-Kern Co.) following earthquake jolts.	M/J '46 p30
Imperial Valley earthquake	
Damage to schools	
Ceiling dropped to floor in one old school.	Jun '40 p24
New Brawley Union High School buildings, undamaged by tremor.	Jun '40 p24
Damage to state highways	
Settlement of 18 inches in the approach to New River Br.	Jul '40 p27
Pavement shattered west of Brawley.	Jul '40 p27
Pavement cracked east of Ash Canal.	Jul '40 p27
16 in. offset in pavement on Rt. 27.	Jul '40 p27
Timber piles shoved from beneath caps of New River Br.	Jul '40 p27
Horizontal shift of 9 feet where fault line crosses Rt. 202.	Jul '40 p27
Minnie A. Caine before burning, wreckage of.	Apr '40 p17
All that remained of <i>Minnie A.Caine</i> after burning.	Apr '40 p17
Tidal currents threaten Coast Hwy. near Santa Monica Bay due to shipwreck.	Apr '40 p26
PAVEMENT & PAVING	
Aggregate gradation control, new method of installed	
View of continuous mixer from product hopper tower.	M/A '51 p21
View from side opposite the mixer.	M/A '51 p21
Arrangement of weighing hopper under the graduation control unit.	M/A '51 p22
Control gate for one of the bins; Sample reduction device.	M/A '51 p23
Armor coat construction	WI/A 31 p23
Steel broom on motor grader blade used for lighter spread of screenings.	N/D '44 p13
Steel drag broom being towed by motor grader.	N/D '44 p13
Rollers following the drag broom.	N/D '44 p14
Brooming medium screenings with steel drag pulled by light tractor.	N/D '44 p14
Asphalt shoulders being completed on new freeway.	J/F '66 p36
Asphalt subsealing	3/1 00 p30
Asphalt subscaling crew at work.	M/J '46 p8
Ames dial used to record pavement raise in asphalt jacking.	S/O '46 p12
Asphalt heating tanks. M/J '46 p10;	S/O '46 p11
Nozzles, types of used in asphalt subsealing. M/J '46 p9+; M/J '46 p9+;	
Subsealing crew with equipment.	M/J '46 p13
Subsealing done by two nozzlemen using one asphalt heating unit.	S/O'51 p34
Test holes with thermometer inserted to determine flow of asphalt under pavemen	-
Two hammers drilling holes for asphalt subsealing.	M/J '46 p10
Asphaltic emulsion seal being applied to cement treated subgrade.	N/D '52 p13
Bituminous surfaces, hauling and placing of	14/D 32 p13
Spreader box in position for next truck to use.	S/O '54 p53
Spreader box used with the bottom dump hauling unit.	S/O '54 p53
Windrow left by bottom dump hauling unit and spreader box.	S/O '54 p53
Equipment string for placing surfacing course.	S/O '54 p54
Loader and paver in operation on surfacing course.	S/O '54 p54
Gap in windrow to control quantity being fed to paving machines.	S/O '54 p55
Cement distribution in bases tested	5/O 54 p55
Acid-based titration test for cement distribution in bases.	N/D '59 p8
Layout for constant neutralization procedure.	N/D '59 p8
Field kit for acid-base titration test.	N/D '59 p11
Cement plants; typical California cement plant situated at Redwood City.	May '40 p29
comoni piano, typicai camonia comoni piani situatea at reamona city.	111uy 40 p2)

PAVEMENT & PAVING, Continued

TAVENTA TAVING, Continued		
Cement-treated bases		
Cement treatment 1937.	M/J '55 p40	
Cement treatment 1955.	M/J '55 p41	
Truck dumping cement stabilized mix in bulldozer spreader box.	Mar '41 p19	
Bulldozer equipped with forward steel wings attached to ends of blade.	Mar '41 p19	
Wheels spreading mixture approximately 14 inches deep on roadway.	Mar '41 p19	
P&H Stabilizer processing cement stabilized base (US 101, Humboldt Co.).	J/F '51 p54	
P&H Stabilizer in operation.	J/F '51 p55+	
Equipment dry mixing cement and gravel during successful tests in District 1.	J/F '51 p43	
Modified cement treated base experiment: original surface after scarifying.	J/F '46 p29	
Windrow after processing.	J/F '46 p29	
Towed frame developed to scarify and windrow in-place material.	M/J '55 p43	
Cement treated bases/subgrades, improved equipment, control methods		
Sizing windrow of mineral aggregate for road-mixed cement treated base.	J/F '61 p49	
Cement spreader truck.	J/F '61 p49	
Pugmill-type mixer used in road-mixed cement treated base operation.	J/F '61 p50	
Apparatus for obtaining cores of completed pavement/bases to measure thickness.	J/F '61 p51	
Front view of custom-built, cement treated base road mixer; Rear view of same.	J/F '61 p52	
Land-plane type grader.	J/F '61 p52	
Paving machines placing plant-mixed cement-treated base.	J/F '61 p53	
Cement treated bases/subgrades, slipform paving and	1	
Automatic road-building machine cutting subgrade on untreated base.	S/O '60 p45	
Windrows of untreated base material for layer of cement-treated subgrade.	S/O '60 p45	
Cement distributor truck spreading cement on windrow of untreated base material.	S/O '60 p47	
Cement treated subgrade operations showing road mixing and initial rolling.	S/O '60 p45	
Cement treated subgrade in vicinity of Avenue Pico Undercrossing.	S/O '60 p45	
Cement work in progress on Rt. 82 and Rt. 87 in San Francisco.	N/D '65 p3	
Concrete durability tests		
Cracks in sea wall at Santa Barbara; Cracked sea wall along coast in Ventura Co.	J/F '48 p26	
Pier at north end of main Ferry Building, S.F. Harbor, constructed in 1894.	J/F '48 p32+	
Right face of pier showing honeycomb but little if any concrete disintegration.	J/F '48 p32	
1912 precast reinforced pile jackets, Pier 17, S.F. Harbor.	J/F '48 p34	
1912 concrete in piles, bulkhead and underside of floor of a portion of Pier 17.	J/F '48 p35	
1903 concrete cylinders under N. Annex to the Ferry Building, S.F.	J/F '48 p36	
Concrete experiments conducted by Materials and Research Dept.	3/1 10 p30	
Application of modified epoxy adhesives in bridge repair.	S/O '57 p18	
Automatic equipment for freezing and thawing test for concrete.	S/O '57 p17	
Concrete aggregate samples being prepared for shipment to District Lab.	S/O '65 p42	
Sampling aggregate base from windrow.	S/O '65 p45	
Core drill used to study pavement performance.	S/O '57 p15	
Determining compressive strength of concrete.	S/O '57 p15	
Determining fineness of portland cement.	S/O '57 p15	
Gages and recorder to measure length changes of concrete as it freezes.	S/O '57 p17	
Linear traverse device used in determining entrained air content of	5/O 5/ p1/	
hardened concrete.	N/D '62 p33	
Measuring electrical resistivity of concrete. N/D '64 p29	1N/D 02 p33	
On-the-job test to determine the weight of portland cement concrete.	N/D '60 p25	
	באן טט p23	
Concrete Pavement; Calcium chloride admixture Bags of flaked calcium chloride spotted on grade.	M/A '52 m21	
	M/A '52 p21	
Adding flaked sodium chloride to mix.	M/A '52 p21	

PAVEMENT & PAVING, Continued

FAVEMENT & FAVING, Continued	
Concrete pavement warp	
Compacted imported borrow removed to show membrane seal intact.	F '38 p8
Progressive operations in laying Portland cement.	F '38 p9
Membrane seal in place ready for imported borrow.	F '38 p9
Motor grader spreading imported borrow.	F '38 p9
Imported borrow in place on membrane seal, ready for grading, paving operations.	F '38 p9
Device for measuring amount of pavement warp at expansion joints.	Mar '38 p20
Device in use.	Mar '38 p28
Concrete uniformity, mixer tests conducted	•
Crew carries on test to determine percentage of air in mixture of concrete.	M/J '60 p60
General arrangement of test area.	M/J '60 p60
Crack and Joint Sealing for concrete pavement	1
Longitudinal joint sealing operations and equipment.	M/A '47 p13
Old and new type of assembly used for joint sealing.	M/A '47 p13
Full circulating type assemblies with swivel joints for longitudinal joint sealing.	M/A '47 p13
New type of assembly and nozzle used in joint sealing.	M/A '47 p14
New type of assembly using four swivel type Chikson valve.	M/A '47 p14
Electronically controlled and guided slip form paver in action.	J/A '60 p9
Equipment being used on Redwood Hwy. near Laytonville, Mendocino Co.	M/J '50 p46
Fatigue ("alligator") cracks in pavement.	S/O '60 p41
Finishing operations on Ventura Fwy. (US 101)	M/J '60 p4+
Foundations	141/3 OO p-4 1
Army engineers inspect runway test pavement at Stockton field.	May '42 p2
Engineer testing deflection of pavement under loads corresponding in	Way 42 p2
footprint and contact pressure to those of heavy bombers.	May '42 p3
Reworking pavement foundations	Way 42 p3
Newly scarified pavement; texture of finished pavement.	N/D '50 p25
Applying asphalt softener through Gardner mixer.	N/D '50 p26
Heavy-duty pavement breaker in operation.	J/F '65 p37
Spreading first 4-in. lift of cement treated base on I-5, Tehama-Shasta Co.	J/F '65 p38
Lime stabilization	3/1 03 p36
Experiment on cohesiveness of lime-treated clay.	
Tank truck spreading lime slurry to avoid lime dust.	J/F '66 p36
Mechanical road mixing of lime with damp aggregate.	J/F '66 p36
Large tank truck and spreader used in laying dirt lime.	J/F '66 p36
Dry lime being converted into slurry in mixing tank.	J/F '66 p36
Highway treated with 2% lime in Aug., 1948, photographed April, 1949.	J/A '50 p7
Failed section not treated with lime.	J/A '50 p7
Spreading untreated base rock and agricultural bulk lime.	J/A '50 p8
Mixing with pulvomixer and blade.	J/A '50 p8
6-inch base material with penetration oil treatment placed Nov. 1948.	J/A '50 p9
6-inch base material which went through winter without oil treatment.	J/A '50 p9
Failed section which was not treated with lime; Appearance in March, 1950.	J/A '50 p11
Mud jacking equipment in operation forcing cement treated loam under paving.	J/A '44 p11
Drilling holes prior to mud jacking operations.	J/A '44 p11
Water being forced from underneath pavement by air pressure.	J/A '44 p12
Paving operations by hand ca. 1914. Paving operations using machinery, 1961.	J/F '61 i.cvr.
Paving operations on Corona Bypass section of Riverside Fwy. (Rt. 91)	J/A '61 p28+
Paving operations, Tehama Co.	0 / / 0 :=
Dumping and rolling cement stabilized base material on prepared subgrade.	O '40 p17
Operation of applying curing seal of asphaltic emulsion on prepared subbase.	O '40 p17
Finished base ready for more plant-mixed, machine spread asphaltic concrete.	O '40 p18

PAVEMENT & PAVING, Continued Paving operations using twin batch paver, mechanical spreader and mechanical tamper. N/D '52 p12 Paving operations using Barber-Greene traveling plant. N/D '52 p12 Pavement design, effect of inherent volume change on Crack developed from unrestrained end of long unreinforced concrete pavement. J/F '48 p21 Pavement experiments conducted by Materials and Research Dept. Compression test for determining strength of cement-treated base specimens. J/A '57 p61 Experimental installation of wire mesh to determine whether it will be effective in preventing cracks in asphaltic resurfacing. J/A '57 p62 J/A '57 p63 Experimenting with bituminous binder containing rubber latex. (seal-coating) Inserting test specimens in stabilometer prior to testing. J/A '57 p61 Making Benkelman beam deflection tests to find out how much a pavement is bent or stressed under heavy wheel loads. J/A '57 p65 Making centrifuge kerosene equivalent determinations. J/A '57 p60 Measuring skid resistance of pavement surface. J/A '57 p63 J/A '57 p60 Performing tests on bituminous products. Placing of Zoca to Wigmore asphalt test sections to determine their quality. J/A '57 p63 "Simulated traffic polisher" used to test various seal coat surfaces. N/D '60 p29 Small pressure tests to determine how much weight of base and pavement J/A '57 p61 will be required to prevent sail from expanding. Taking a sample of pavement base and subbase on a new section of highway. N/D '60 p29 Test installation of asphalt-latex seal coat to protect wooden bridge deck. J/A '57 p62 Test specimens cut from pavements by coring or sawing. J/A '57 p62 Plant mixed surface, open graded Close-up of open graded plant-mixed surface showing typical surface texture. J/A '56 p14 Close-up of dense graded plant-mixed surface showing typical surface texture. J/A '56 p14 Rakers forming 1-ft. taper section on left, trimming longitudinal joint on right. J/A '56 p15 Paving open graded plant-mixed surface; Breakdown roller on fresh mat. J/A '56 p15 J/A '56 p16 Advantages of an open graded plant-mixed surface. Delineation characteristics of open graded plant-mixed surface blanket. J/A '56 p16 Open grade carried through intersection. J/A '56 p18 Section of US 101 south of Klamath at Freshwater Lagoon in good condition despite recent flood. J/A '56 p19 J/A '56 p21 Delineation effect of O.G. plant-mixed surface at intersection. Delineation effect of O.G. plant-mixed surface on US 101 south of Crescent City. J/A '56 p21 J/A '56 p21 Delineation effects of O.G. plant-mixed surface on US 101 north of Eureka. Use of open graded plant mixed surface blankets on mountain roads. J/A '56 p21 Plant-mix surface repair project near Buellton, Santa Barbara Co. M/A '46 p10 Preformed material, use of in weakened plane transverse joint. M/A '48 p19 Reflection cracking Typical reflection cracking. M/A '56 p61 M/A '56 p61 Conditions of old concrete pavement random cracks. M/A '56 p63 Expanded Metal Stud driver used in fastening sheets to P.C. C. pavement. 2-ft. wide sheet fastened along leading edge; Same, placed over random crack. M/A '56 p63 Typical expanded metal test section prior to paving. M/A '56 p63 Bituminous Road Mesh Test section with 3x8-in. diamond mesh. M/A '56 p63 Lapping of sheets; Sleds used to hold down road mesh and welded wire fabric. M/A '56 p63 Close-up of paving operations; Position of mesh after placing leveling course. M/A '56 p66 Welded wire fabric fastening leading edge of first sheet; Laying 3x6-in. wire fabric. M/A '56 p66 Road mix on gravel base surfaces in a mountainous area. Apr '42 p14

PAVEMENT & PAVING. Continued

PAVEMENT & PAVING, Continued	
Rubber Paving	
General view of plant.	N/D '51 p3
Experimental section after rolling; Placing surface with Barber-Greene.	N/D '51 p3
Close-up of surface with rubber added.	N/D '51 p3
Experimental section identified with marker on shoulder.	N/D '51 p3
Plant mix with and without rubber.	N/D '51 p3
Detroit PW officials and Firestone reps. observe installation of rubber road.	N/D '51 p6
Seal coats	· · · · · · · · · · · · · · · · · · ·
Heating and raking equipment used on I-80 [US 40].	M/A '52 p36
Portion of I-80 [US 40] treated by heating and raking.	M/A '52 p36
Slurry seal coat process watering the pavement.	M/J '55 p37
Slurry train in action; Spreading slurry; Completed slurry in right lane.	M/J '55 p37+
Surface treatments and, design of.	J/A '49 p11
Skid resistance study being conducted	J/A '52 p29+
Test area on I-5 in Kern Co. showing diagonal and longitudinal scoring of	3/11 32 p2)
portland cement concrete pavement for improving skid resistance.	N/D '66 p17
Slipform paving	14/D 00 p1/
Placing portland cement concrete highway pavements with automatically	
controlled slip form paver.	N/D '64 p23
Tilt-drum truck paving mixers delivering concrete mixed in transit to job site.	N/D '64 p23
Close up of grade and alignment sensors on slipform paver.	J/F '65 p65
	J/F '65 p65
Operators steering paver manually by use of plumb-bob and stringline.	1
Three-lane slipform paver in operation.	J/F '65 p66
Low profile central mix-plant. Tilt-drum mixers in use.	J/F '65 p67
	M/A '65 p68
Sliding front plate on slipform paver.	M/A '65 p68
Taut stringline being used to measure subgrade.	M/A '65 p69
Close-up of pavement edge immediately behind slide forms.	M/A '65 p69
Measuring pavement thickness.	M/A '65 p70
Pipe floating operation in progress.	M/A '65 p72
Burlap drags being used to produce nonskid texture.	M/A '65 p73
Close-up of longitudinal joint installer.	M/A '65 p73
Tie-bars for longitudinal joints being placed by mechanical installers.	M/A '65 p74
Slip-form paver in operation on I-505 [Vacaville-Dunnigan Cut-off, Rt. 90]	J/F '60 p20
Tensioned piano wire installed to guide slip-form paver.	J/F '60 p21
Right and left front elevation control probes.	J/F '60 p22
Rear view of slip-form paver. J/F '60 p23;	M/J '60 p47
Belt conveyor discharge for paving mixtures.	J/F '60 p23
Tractor-towed spreader with automatic hydraulic controls.	J/F '60 p23
Triple batch plant set up for Vacaville-Dunnigan Cut-off project.	J/F '60 p24
Rear view of mixer discharging cement-treated subgrade material.	J/F '60 p24
Front view of mixer for cement treated subgrade showing bucket conveyor.	J/F '60 p24
Close-up of slip-form paver showing right rear hydraulic ram.	J/F '60 p25
Device for installing reinforcing steel as tie bars across longitudinal	
weakened plane joints.	J/F '60 p26+
Paving mixer charging the slip-form paver during operations on I-505.	J/F '60 p26
Hand finishing and edging between the trailing forms.	J/F '60 p27
Applying pigmented curing compound from a self-propelling bridge.	J/F '60 p27
Paver, showing "V" float between the trailing forms.	J/F '60 p28
Slip form paver being fed by two dual-drum concrete paving mixers.	M/J '60 p47
Concrete being placed in front of slip form paver in position for initial	
strike-off by hydraulically operated screed.	M/J '60 p48

PAVEMENT & PAVING, Continued Screed at its forward limit of travel. M/J '60 p48 Method used to insert keyway section in front of slip form paver. M/J '60 p49 Rear view of slip form paver. M/J '60 p50 Slip-form paver in use on section of I-8 [US 80] in El Cajon. S/O '61 p66 Slip-form paver in operation on Rt. 99 [US 99-50] south of Sacramento. N/D '61 p21 Night paving operations Finishers following slipform paver. S/O '66 p26 Slip-form paver in operation. S/O '66 p27 S/O '66 p28 Finishing against existing pavement. S/O '66 p28 Ten-wheel dump truck deposits load in front of moving slipform paver. Paving machine operator checking area just ahead of slipform. S/O '66 p29 Slab of freshly poured concrete stretching out behind paver in distance. S/O '66 p29 Four-lane slipform paver devised by Kasler Corp. M/A '66 p44 Workman removing guide wiring on 4-lane paver. M/A '66 p45 M/A '66 p45 First section of concrete pavement to be laid with new 4-lane paver. Jun '38 p14 Soil stabilization tests S/O '64 p11 Spreading and compacting surfaces with grader and rubber-tired roller. Steel side forms being placed adjacent to lane of portland cement concrete. N/D '52 p13 M/A '49 p7+ Subgrade construction on Santa Ana Fwy., I-5. Subgrader and windrow sizer cutting subgrade and sizing windrow. N/D '52 p13 Subsealing concrete pavement Compressor and storage tank for asphalt emulsing mounted on truck. S/O '50 p156 S/O '50 p156 Heater unit used in heating premix material for patching during cold weather. Tank and heating unit for pumping asphalt used in subsealing concrete pavement. S/O '50 p156 Test tracks; oval track for testing highway construction material and surface mixtures. S '40 p12 Test track straight-away; Super-elevated curve surfaced with bituminous mixture. S '40 p13 PERSONNEL/EMPLOYMENT RELATED Army Reserve; Division of Hwys. employees in Active Army Reserve. M/A '56 p60 Driver training program operations. N/D '60 p65 Employees from eleven different nations at work in Substructure and Minor Contracts Section of Division of Highways in L.A. M/J '55 p51 Highway Dodgerettes women's softball team, 1951 team photo. M/J '51 p38 Highway Hi-Lites women's basketball team, 1951 group photo. N/D '51P43 Maintenance men/CHP barbecue in Bear Valley. N/D '50 p55 Merit award recipients Albert A. Hilton accepting certificate of merit on behalf Dist. 8 Hwy. Shop. J/F '51 p57 Andrew B. Schoellkopf accepting Merit Award check from Gov. E. Brown. J/A '59 p18 C.H Purcell presenting certificate of commendation to Wetherby Boorman. J/F '51 p37 Comptroller John Burrill with employee suggestion merit award winners. N/D '66 p19 Employee demonstrating spring-loaded clip he recommended for fastening covers on outdoor fluorescent light fixtures. M/J '64 p66+ Equipment operator H.M. McCallister receiving merit award and check. S/O '51 p55 M/J '61 p78 Personnel clerks at group meeting to discuss problems and new procedures. N/D '64 p60 Safety; employees observing model of work area protection on multi-lane freeways. Training session for accounting personnel. N/D '64 p58 Training session on equal opportunity employment. M/A '65 p52 Training sessions on "Procedures, Testing Methods and Use of Materials for Highway Purposes." N/D '61 p63 Twenty-five Year service awards Service award recipients and PW Dept. officials, group photo. S/O '51 p62 Certificates and pins being distributed to Dist. 7 employees. M/J '54 p29

REST STOPS & VISTA POINTS First official safety roadside rest area (I-5, Red Bluff). J/A '65 p8+; N/D '65 p43 Fresno Co. Parking area at N. and S. Forks of Kings Rvr. N '39 p7 Parking area at Windy Cliff River crossing on Kings River Hwy. Jul '38 p7 Humboldt Co. Arcata; vista point on US 101. N/D '64 p12 McKinleyville; vista point area overlooking ocean. J/F '65 p33 Lake Co., Rt. 20; Parking area at Blue Lakes Hwy. view point. Aug '38 p27 Marin Co.; vista point at Golden Gate Br. M/J '63 p36; S/O '64 p23 Nevada Co.; Donner Summit, I-80 [US 50; Leg. Rt. 37] Roadside rests near Donner Lake J/A '65 p10 Vista points, construction of. S '38 p21 O '37 p3 Lookout station for tourists. Roadside rest for desert highway. N/D '66 p14 San Bernadino Co.; Roadside rest on I-15 near Baker. J/A '65 p10; N/D '65 p38 S/O '65 p15+ Halloran Springs roadside rest areas (I-15). San Bernadino Mountains.; Rt. 18 [Rt. 43] Parking area at Mormon Slide Parkway N '37 p16 Popular parkways leading into the San Bernadino Mountains. N '37 p17 Strawberry Parkway Lookout. N '37 p17 Valley View Point looking westerly toward Cajon Pass. N '37 P17 San Francisco; Embarcadero Fwy. vista point Entrance from Broadway on-ramp. M/A '61 p2 Fenced-off vista area on upper deck. M/A '61 p2 Officials inspect vista area on its opening day. M/A '61 p2 Santa Barbara; turnout and vista point on US 101 at Ortega Hill. N/D '64 p45 N/D '64 p37 Sierra Co.; roadside rest on Rt. 49 expressway near Sierra City. Tehama Co.; roadside rest along I-5. N/D '65 p44 US Forest Service vista point at Peddler Hill overlooking Bear River Reservoir. S/O '64 p9 RIGHT-OF-WAY American Right-of-Way Assc. (ARBA), L.A. Chapter President Dexter D. McBride, Club Chairman John C. Webb, and National Chairman Frank C. Balfour. N/D '54 p52 S/O '59 p39 Home purchased by state in 1949 with assessed value of \$530.00. Home owner subsequently acquired in 1950 with estimated value of \$1,800. S/O '59 p39 Home purchased by state in 1950 assessed at \$2,170; Same home after sale at public auction and relocation in 1953 with assessed value \$4,610. S/O '59 p42 Housing adjacent to freeway right-of-way Tract house with backyard adjoining I-880 [Eastshore Fwy.] Tract homes on frontage road alongside Santa Ana Fwy. (I-5) M/A '57 p25 Home with back yard adjoining Santa Ana Fwy. enclosed with concrete block wall. M/A '57 p26 Residences on frontage road alongside I-10 (San Bernadino Fwy.) M/A '57 p27 M/A '57 p29 Residences with back vards adjoining I-880 (Eastshore Fwv.) Older residential tract alongside Eastshore Fwy. with back yards adjoining right-of-way, showing plantings along rear property boundary. M/A '57 p29 Subdivision at East Washington St. Interchange on US 101 near Petaluma. N/D '57 p30 Subdivision layout in Hayward which provides for residences backing up to the I-880 [Eastshore Fwy] rather than facing it. N/D '57 p31 Aerial view of subdivision in San Mateo near Bayshore Fwy. (US 101). N/D '57 p31

M/A '56 p71

J/F '61 p39

Public auction of a N. Hollywood apartment house conducted by state personnel.

Remainder parcel near Hollywood Fwy., 1954; Apartment house built on parcel, 1958.

RIGHT-OF-WAY, Continued	
Right-of-way Agents' at annual meeting.	M/A '49 p49
Right-of-way agents from Oregon with Frank C. Balfour, Chief Right-of-way	· · · · · · · · · · · · · · · · · · ·
Agent, California Division of Highways.	M/A '49 p39
Training academy, junior right-of-way agents and assistant agents at	S/O '65 p53
27th St. between Telegraph Ave. and Broadway in Oakland showing business	1
establishments located on surplus property acquired for street right-of-way.	M/J '59 p10
Residences at end of 27th St. in 1953.	M/J '59 p11
Same location after completion of divided roadway in 1958.	M/J '59 p11
ROAD CONSTRUCTION	
Bid opening in PW Building, Sacramento; Group tabulating and checking bids.	M/A '49 p46
Assembly room employees at work tabulating bid proposals and extensions.	J/A '57 p2
Borrow pits M/J '55 p2+;	S/O '56 p60+
Congressman Jeffrey Cohelan with map of highway construction throughout state.	S/O '60 p11
Construction, nineteenthearly twentieth century	1
State highway in San Benito Co., typical of early highways.	J/A '52 p45
Field party, horses and equipment in Mendocino, 1913.	S/O '44 p7
Constructing original highway through Sacramento Rvr. Canyon ca. 1912.	M/J '63 p23
Paving operations in Tehama Co. ca. 1915-16, with horse drawn water-wagon	•
used to supply concrete mixer.	J/A '50 p15
Paving operations by hand ca. 1914	J/F '61 i.cvr.
Commissioners R.C. Irvine and F.L. Maude of first Bureau of Hwys. mapping	
out a state highway system in horse-drawn buckboard, 1896.	S/O '50 p71
Page from first meeting of Bureau of Hwys. held on April 11, 1895.	S/O '50 p73
Picture with title "We love our country/Be it ever so humble/There's no place	
like home" used in early bond issue campaign.	S/O '50 p77
Official party at ground breaking for start of construction on	
State Hwy. Contract No. 1 in San Mateo Co., Aug 7, 1912. S/O '50 p78;	J/A '52 p45
Hand excavation through lava rock formation on Alturas-Cedarville State Rd.	S/O '50 p93
Beginnings of hauling damage before track-laying tractors were ruled	0/0 /70 02
off the highways.	S/O '50 p93
Horse and buggy stranded due to poorly drained highway.	S/O '50 p93
Testing 4-inch base on state highway, 1913.	N/D '52 p46
Army survey party crossing Clear Creek Br on Klamath Rvr. Trail, 1909. Early test road near Pittsburg, Calif. ca. 1925.	N/D '58 p52 M/A '61 p55
CHC member traveling by buckboard, 1895.	J/F '66 p2+
Damage to roads	J/F 00 p2∓
Damage to roadside caused by incessant hammering of ocean.	S/O '51 p31
Failure of Red Bluff-Susanville road due to inadequate base.	Jan '40 p10
District engineers at two-day meeting to discuss construction problems.	S/O '61 p70
Divided Highways	5/0 01 p/0
Embossed white arrows bordered by double traffic stripe make separation	
strip on 4-lane highway.	N '37 p1
Divided highway on coast route preserves existing tree rows in separation strip.	N '37 p1
Divided 4-lane highway on Coast Rt. with curbed and planted minimum dividing	- · P-
strip, dual type pavement with 12-ft. interior and 11-ft. exterior lanes.	O '38 p7
Highway approaching Long Beach; raised white arrows in center dividing strip.	N '37 p1
Type of highway built ca 1937.	F '38 p7
	1

ROAD CONSTRUCTION, Continued

E AUCTION, Continued	
Forest Highways 1919 construction on Klamath River.	M/I '50 - 10
	M/J '50 p10
Average forest highway standard ca. 1930-1940.	M/J '50 p10
Lumber truck hauling load on narrow, poorly paved forest highway.	M/J '50 p10
Snow on Placerville-Lake Tahoe Forest Hwy.	M/J '50 p11
Characteristic of many early forest highway projects, outmoded by 1950.	M/J '50 p12
Calaveras Big Trees, a major factor in Ebbetts Pass Hwy. project in early years.	M/J '50 p13
Twin Lakes viewed from Mammoth Forest Hwy.	M/J '50 p14 M/J '50 p14
Tunnels improve alignment on Ventura-Maricopa Forest Hwy. Representative forest highways designed for modern traffic.	M/J '50 p14 M/J '50 p14
Recreation uses of forest highways	M/J 30 p14
Parking lot and beach scene at lodge on Sonora Hwy.	M/J '50 p15
Highway between San Bernadino and Big Bear Lake.	M/J '50 p15
Traffic on forest highway through winter sports area.	M/J '50 p16
Lumber/Logging Roads	W1/3 30 p10
Lumber truck hiding out off highway.	J/A '52 p9
Heavily loaded lumber truck kicks up dust on Rt. 36 in Humboldt Co.	J/A '52 pJ
Van Duzen River Br. damaged by logging trucks.	J/A '52 p11
Logging plant.	M/J '66 p4
Logging trucks on Rt. 299.	J/A '52 p11
Logging truck on narrow road, (Rt. 299).	J/F '45 p6
Lumber truck hauling load on narrow, poorly paved forest highway.	M/J '50 p10
Mobile trailer-offices	141/3 30 p10
Exterior view of trailer office used in field by Division of Hwys. engineers.	N/D '49 p62
Interior of trailer showing office equipment and facilities.	N/D '49 p63
Interior view of drafting room.	M/J '56 p53
Looking through file room into resident engineer's office.	M/J '56 p53
Left-hand exterior entrance to trailer; Resident engineer's office.	M/J '56 p54
Interior of mobile laboratory.	S/O '60 p66+
Side view with storage compartments open.	S/O '60 p67
Roads; improvements needed, general	•
Sharp curves on unidentified stretch of road.	Apr '39 p2
City and county officials comprising advisory committee for local road and	
street needs study.	N/D '64 p49
Traffic engineers evaluating potential minor improvement spots.	J/A '65 p33
Narrow, poorly aligned section of Rt. 299.	J/F '67 p29
Typical congested street on major through route in a major Central Valley city.	J/F '67 p29
Vacation housing development, 23 miles from nearest state highway.	J/F '67 p29
Traffic congestion on major FAS route.	J/F '67 p29
Narrow section of unidentified mountain highway.	J/F '67 p29
Sustained mountain grade on section of freeway.	M/J '64 p23
Unpaved roads, Dist. 2.	Jul '38 p1
Storm damage to	Jan '40 p9
Road Construction Outside California	
Brazil; highway from Santos to San Paulo,	0/0 /74 20
Road between Tocopilla and Antofagasta, Chile.	S/O '54 p28
Accident blocking road between Buenaventura and Cali, Colombia.	S/O '54 p28
Egypt; Engineer Francis N. Hveem with Egyptian contractors and engineers.	M/A '59 p31
Hyeem in the Laboratory in Cairo; Great Pyramid at Gizeh.	M/A '59 p32
England; Great North Rd. at Stamford. [See correction N/D '57 p52].	S/O '57 p61
France; super-highway linking Paris, Brittany, and Normandy.	M/A '46 p32

ROAD CONSTRUCTION Outside California, Continued Mexico

Mexico	
Gov. Soto of Sonora Mexico with California Hwy. Engineer F. N. Hveem.	J/A '51P5
Tijuana-Ensenada Hwy., grading operations on.	J/F '64 p40+
Native stone gravity retaining wall along old highway.	J/F '64 p40
Concrete pour on thin shell bent footings.	J/F '64 p41
Construction of thin shell bent footings at El Morro.	J/F '64 p41
Workmen constructing a native stone bridge pier.	J/F '64 p42
New Guinea; primitive methods of highway construction in.	J/A '57 p3
	1
ROADSIDE BUSINESSES AND BYPASSES	
Alameda Co.; industries adjacent to I-880 [Eastshore Fwy.]	
Dodge Automobile Plant; Dean Van Lines; A.O. Smith Co.	M/J '54 p26
Lucky Stores Main Office; Freschi Box Co.	M/J '54 p26
Zellerbach Wax Paper Div.; Trailmobile; Republic Supply; American Blower.	M/J '54 p27
Residential development adjacent to I-880 [Nimitz Fwy.].	M/A '59 p13
Drive-in restaurant with reasonable ingress and egress along highway.	M/A '45 p2
Fresno Co.	-
Drive-in theater south of Central Ave. with access to outer highway.	N/D '49 p32
Large truck-service station constructed upon investigated property subsequent	1
to freeway development.	N/D '49 p33
Outer highway adjacent to multiple-lane limited freeway on Rt. 99 at Malaga.	M/J '48 p7
Office and warehouse structure of the San Joaquin Poultry Producers' Assoc.,	1
constructed upon parcel investigated subsequent to development of freeway.	N/D '49 p33
Roadside business development on East Ave., Fresno.	N/D '49 p31
Imperial Co.; Imperial main business street subsequent to opening of bypass.	M/J '51 p29
Industries to the right of expressway opposite Imperial business district.	M/J '51 p31
Kern Co.; Delano	- P
Block of stores built since 1954.	M/A '59 p25
High St., Delano, former state highway route.	M/A '59 p21
Main St., showing dominant pedestrian-type business establishments.	M/A '59 p26
Supermarket in West Delano built since freeway construction started in 1954.	M/A '59 p25
Los Angeles Co.	1/1/11 c> p=c
Crenshaw Blvd. looking north, Leimart Park, L.A.	J/F '48 p15
Development of area in vicinity of Santa Barbara Ave. and Crenshaw Blvd.	M/J '48 p2+
Development on west side of Crenshaw Blvd. from Stocker Ave. to	10 p2
Exposition Blvd., ca. late 1940s.	M/J '48 p3
Crenshaw Blvd. showing outer highway development.	M/J '48 p6
Development of May Co. and Broadway Dept. Store.	M/J '48 p6
El Monte business district at Valley Blvd.	J/F '59 p17
I-5; Santa Ana Fwy.	3/1 3/ p1/
Olympic Blvd. used for comparison in Test Area A.	J/A '54 p20
Telegraph Rd. adjacent to Santa Ana Fwy.	J/A '54 p20
New industrial plants adjacent to Santa Ana Fwy.	J/A '54 p22
Bandini Blvd.; Industry in Test Area C near Bandini Blvd. ramp.	J/A '54 p22
Homes built 1953-55 near Florence Ave. overpass and Santa Ana Fwy.	S/O '55 p2
Florence Ave. overpass bridge and surrounding homes built 1950-1955.	S/O '55 p5
Lever Bros. Manufacturing Co. plant adjacent to Santa Ana Fwy.	S/O '55 p5
Kaiser Steel plant along Santa Ana Fwy. frontage road in East L.A. area.	S/O '55 p7
Lakewood Development along Rt. 19 [Rt. 168] near Long Beach.	M/A '45 p3
Subdivision along Sepulveda Blvd. in L.A. Co.	J/F '48 p11+
Yor-Way Market on Azusa Ave. after reconstruction of highway.	S/O '61 p46
Yor-Way Market before Azusa Ave. was reconstructed.	S/O '61 p47
TOT- Way Market Delote Azusa Ave. Was reconstructed.	5/0 01 p4/

ROADSIDE BUSINESSES & BYPASSES, Continued	
Marin Co.; Meadow Park Housing Project near Hamilton Field (US 101).	S/O '45 p24
Monterey Co.; Eckhardt Seed Co. plant	r
Plant before construction of conveyor tunnel under US 101.	M/A '54 p43
After view showing buildings removed for right-of-way clearance.	M/A '54 p43
Orange Co.	
Angel Stadium under construction near future Orange Fwy.	M/A '65 p32
Disneyland, showing relationship with Santa Ana Fwy.	J/A '63 p25
Attractions at Disneyland.	S/O '55 p3
Aerial view of Disneyland and surrounding environs. Parking lot at Disneyland on a holiday weekend.	S/O '55 p8 J/F '67 p30
Broadway-Anaheim Shopping Center under construction in Anaheim.	S/O '55 p12
Robertshaw Fulton Controls Co. adjacent to Santa Ana Fwy. in Anaheim.	S/O '55 p12
Placer Co.; Auburn	5/0 33 p12
Aerial view of freeway through Auburn showing main business district.	M/J '50 p2
Buildings abutting form highway.	M/J '50 p3
Historic old section of Auburn near firehouse.	M/J '50 p4
Street scene during midday, showing normal parking and traffic conditions.	M/J '50 p4
Buildings constructed since building of freeway (ca. 1947).	M/J '50 p6
Riverside Co.	T/A (51 5)
Section of Temecula business district.	J/A '51 p7+
Community map-type sign placed along freeway to direct motorists to Temecula. Building (ca. 1880s-90s) in Temecula, formerly a saloon.	J/A '51 p8
Sacramento Co.	J/A '51 p57
N. Sacramento at junction of former state highway and freeway (Bus-80).	J/F '50 p4
Billboard on freeway at El Camino off-ramp.	J/F '50 p6
Del Paso Blvd. business section.	J/F '50 p5, 7
Frontage road facilities along the N. Sacramento Fwy.	M/A '51 p16
N. Sacramento Fwy. showing Continental Baking Plant under construction,	
and drive-in theater.	S/O '51 p5
Folsom; downtown business scene after opening of bypass.	M/J '51 p28
Ritz motel on frontage road in N. Sacramento.	J/F '54 p36
Large undeveloped land parcel adjacent to I-80 [US 40] near Sacramento, 1953.	M/J '60 p11
Sacramento Inn built on property after completion of freeway. Circuitous routes motorists traveling to and from Sacramento must follow	M/J '60 p11
to reach the motel.	M/J '60 p12+
Sacramento Inn as it appears to motorist passing directly opposite.	M/J '60 p14
I-80 at Grand Oaks subdivision near Antelope Rd. interchange.	J/A '66 p30
Typical study group homes showing proximity to freeway.	J/A '66 p30
San Diego Co.; Escondido	1
Escondido, showing freeway bypass of city, surrounding orchards.	J/A '51 p12
Escondido Blvd., superseded portion, showing roadside businesses.	J/A '51 p13
Intersection of Grand Ave. business district and expressway, Escondido.	J/A '51 p14
Motel along expressway in Escondido.	J/F '54 p26
San Francisco Co.	N/D 447 16
Junipero Serra Blvd., S.F. showing two outer highways.	N/D '47 p16 N/D '47 p16
Residential property development on Junipero Serra Blvd. Scientific development of Westlake community, s. of S.F.	M/A '51 p29
San Luis Obispo	141/FX 31 p29
Residential community of Shell Beach.	N/D '51 p39
Templeton business district along old highway route.	J/A '55 p25
San Joaquin Co.; roadside businesses along expressway through Ripon.	M/A '51 p30
	•

ROADSIDE BUSINESS & BYPASSES, Continued

ROADSIDE BUSINESS & BYPASSES, Continued		
San Mateo Co.		
Roadside development on El Camino Real at Five Points, Redwood City.	M/J '47 p16	
El Camino Real at San Mateo Ave., San Bruno.	M/J '47 p16	
Roadside development on El Camino Real at Jenevein Ave., San Bruno.		
Santa Barbara Co.		
New outer highway location of Anderson's Valley Inn.	S/O '49 p3, 7	
Farmhouse Motel on frontage road at Buellton. S/O '49 p5;	J/F '54 p26	
Service stations along outer highway block in Buellton.	S/O '49 p2	
Outer highway with buildings moved back or altered to provide new boulevard.	S/O '49 p2	
Casa Santa Ynez motel under construction along outer highway.	S/O '49 p5	
Santa Claus, an active and prosperous looking commercial area, 1955.	M/A '56 p25	
US 101 through commercial street in Buellton before construction of freeway.	S/O '49 p7	
Same area after construction of freeway and outer highway.	S/O '49 p7	
Solano Co.	· F ·	
Aerial view of Fairfield showing relation of freeway bypass to business district.	J/F '51 p5	
Looking north on I-80 [US 40], showing new Safeway store located off	v/1 e1pe	
freeway on Perry St. in Vallejo.	M/J '51 p7	
Monte Vista Motel on expressway near Vacaville.	J/F '54 p24	
North entrance to outer highway at Nut Tree.	J/A '51 p63	
Typical of traffic congestion in Fairfield business district prior to freeway.	J/F '51 p4	
Rt. 99 [Rt. 4] south of Modesto as it appeared when built in 1932.	S '38 p17	
Same section in 1938, transformed by business development.	S '38 p17	
Highway through beautiful Vaca Valley, protected from business	5 56 pr/	
encroachment by right-of-way agreements.	S '38 p17	
Milk Farm Restaurant from northbound lanes of freeway.	J/F '49 p38	
Milk Farm restaurant building as it appears approaching from outer highway.	J/F '49 p40	
Fruit and vegetable drive-in west of Fairfield, on I-80 [US 40].	M/A '48 p23	
Unobstructed view of Terry's Waffle Shop in Vallejo as seen from	M/A 46 p23	
frontage road beneath Magazine St. Overpass.	S/O '56 p51	
Stanislaus Co.	3/O 30 p31	
Realigned Rt. 99 [Rt. 4] near Modesto city limits when built in 1932.	S '38 p17	
Same section, transformed into 20 mile zone by business development.	S '38 p17	
Tulare Co.	5 56 p17	
K St., main Tulare business street parallel with old highway route.	M/J '56 p41	
Uncontrolled vehicle movements on US highway through Tuggleville.	M/A '45 p15	
Unsightly business development along major traffic artery in Tulare.	M/A '45 p15	
	M/A '45 p15	
West entrance to Visalia, almost entirely free of roadside development.		
Rt. 10 near Visalia along Mineral King, relatively free of roadside development.	M/A '45 p18	
Orange Belt Scenic Hwy. near Lindsay, void of roadside development.	M/A '45 p18	
Ventura Co. Outer highway in front of Wagan Wheel Pastaurent and Metal	I/A 440 m16	
Outer highway in front of Wagon Wheel Restaurant and Motel.	J/A '49 p16	
Motel and vicinity in 1946 before construction of outer highway.	J/A '49 p16	
Motel, showing boulevard stop for cars entering freeway from outer highway.	J/A '49 p17	
Motel units which were moved back to make room for outer highway construction.	J/A '49 p17	
Photo taken in 1946 showing future site of Wagon Wheel improvements.	J/A '49 p51	
Motel entrance in 1947 just prior to construction of freeway and outer highway.	J/A '49 p51	
Camarillo; aerial view of freeway and old highway through center of town.	S/O '55 p17	
Traffic through business district on old highway before freeway.	S/O '55 p18	
Business street after freeway.	S/O '55 p18	
Business district along old highway route showing many commercial	0/0 /55 22	
structures built after freeway route was adopted.	S/O '55 p23	

ROADSIDE BUSINESS & BYPASSES, Continued	
Vineyard adjacent to north right-of-way line, and area used for private hauling roa	ad. S/O '48 p21
Private hauling road adjacent to right-of-way line.	S/O '48 p22
Farm machinery business on highway frontage.	J/F '49 p37
Yolo Co.; West Sacramento Fwy (I-80)	_
Aerial view of W. Sacramento before completion of freeway facilities.	J/A '57 p54
Same location after, showing commercial development along superseded high	-
Motels constructed since completion of freeway bypass.	J/A '57 p54
ROUTES	
Alameda Co.	
Alameda access road to San Leandro Naval Hospital in Oakland.	N/D '44 p2
Bancroft Ave. Pkwy., Oakland. M/A '58	-
Channelized intersections, Oakland	1
Broadway and Patton St. intersection before and after channelization.	F '40 p13
Channelization islands at intersection entrance to Landvale Rd.	Mar '39 p21
Channelization at San Pablo Ave. and West St.	S/O '57 p54
Channelization at West St. and Grove St.	S/O '57 p55
Divisional islands at Rt. 24/Rt. 13 [Rt. 75/Rt. 206] intersection near	5/0 5/ p55
Broadway Tunnel.	Mar '39 p20
	0 p12; Mar '40 p17
Gilman St. channelization with left turn lanes.	M/J '45 p24+
Gilman St. with flare on right lanes, raised bar division strip, and	141/3 +3 p2+1
widening of center island to provide left turn lane.	M/J '45 p25
Grand Ave. and Harrison St. intersection, first marked with painted line	1V1/3 +3 p23
then channelized.	F '40 p13
Crow Canyon Rd. after reconstruction.	J/F '53 p51
El Embarcadero between Grand Ave. and Lakeshore Ave., a wide, high	3/1 33 p31
traffic count street transformed into 2 lanes separated by a small park.	F '40 p12
Foothill Blvd.; 3 1/2 mile stretch of 4-lane divided highway.	O '39 p8
Franklin Canyon Rd.; circuitous routing with blind curves.	S '38 p1
Guests at luncheon given by Alameda Co. delegation.	S/O '56 p44
I-80 [US 40]See also LANDSCAPE & LANDSCAPE MAINTENANCE	5/O 30 p44
Section near El Cerrito Overhead.	M/A '46 p11
Section looking north from University Ave. to El Cerrito Overhead.	M/A '57 p11
Section looking south to East Bay distribution structure.	M/A '57 p11
Section looking south toward downtown Oakland.	M/A '59 p13
I-580 [Rt. 5; US 50; I-5W] Altamont Pass	
Altamont Pass ca. 1912, before improvement.	J/A '52 p44
Altamont Pass Highway under construction.	O '37 p19
Group at Altamont Pass ground-breaking ceremonies.	Aug '37 p20
Traffic delays on old highway. View on new Altamont Pass realignment.	O '37 p19
	S '38 p4
Wide parking areas provided on realigned Altamont Pass Hwy.	S '38 p5
Altamont realignment, showing direct route straight through hills compared with circuitous course and many curves of old road.	C 420 m4
	S '38 p6
Raised division strip with six inch curb and signed opening.	S '38 p7
Gov. Merriam burning rawhide riata barrier held by Livermore cows	
Section of Altamont Pass.	Jul '39 p10
Altamont Pass Rd. before it was modernized with gas tax funds.	S/O '50 p132
Altamont Pass after modernization.	S/O '50 p132

ROUTES Alameda Co., Continued

OUTES Alameda Co., Continued	
Altamont Pass-Tracy Expressway	
Midway Rd. fill showing heavy equipment.	M/A '53 p27
Mountain House Underpass off-ramp construction using rock crusher.	M/A '53 p27
Section at Mountain House interchange looking east.	N/D '54 p38
Altamont-Tracy Expressway crossing of Delta-Mendota Canal.	M/A '55 p11
Boehmer Hill-Castro Valley unit	r
Newly constructed eastbound lanes at easterly end of project.	J/A '57 p15
New westbound lanes near Eden Canyon interchange.	J/A '57 p15
Easterly end of project showing ramps to Castro Valley Bypass.	J/A '57 p17
View of improved section from Pergola Hill looking westerly.	J/A '57 p17
Castro Valley Bypass under construction near Redwood Ave. overcrossing.	N/D '53 p22+
Construction near Strobridge Ave. undercrossing.	N/D '53 p23
Construction in Castro Valley for Castro Valley Bypass.	M/A '54 p14
Completed Castro Valley Bypass looking east toward Dublin Canyon.	S/O '54 p5
Livermore; completed section with relocated county road on left.	N/D '50 p8
Typical traffic congestion on old road before improvement.	N/D '50 p9
Section where old road was developed as eastbound lane.	N/D '50 p9
Realignment one mile west of I-680 [Rt. 21] and Dublin.	J/A '52 p37+
MacArthur Fwy.) [Rt. 5; US 50; I-5W]	•
I-580 [Rt. 5] through Oakland, modernized with gas tax funds.	Jun '39 p14
Looking westerly across Oakland residential area showing right-of-way	_
clearance for proposed MacArthur Fwy.	M/A '60 p9, 48
MacArthur Fwy. under construction, looking east from San Pablo Ave.	M/J '61 p5
Crossing structure will carry local traffic over MacArthur Fwy.	N/D '61 p17
MacArthur Fwy. between Park Blvd. and Buell St. in Oakland.	M/J '64 p27
MacArthur Fwy. through San Leandro near Grant Ave.	N/D '64 p65
Gov. Edmund Brown on inspection tour of construction.	N/D '65 p6
Trees and mature landscaping along MacArthur Fwy.	M/A '66 p14
Aerial view of construction near interchange with Rt. 13.	M/A '66 p14
Cleared right-of-way through Oakland for MacArthur Fwy., 1960.	M/A '66 p15
Retaining wall with aesthetic treatment on I-580.	N/D '66 p22
I-680 freeway [Rt. 21] south of Scotts Corner.	N/D '64 p7
Section of I-680 between Rt. 238 (Fremont) and Rt. 84.	M/J '64 p47
I-880 (Nimitz Fwy.) [Eastshore Fwy., US 40; Rt. 17]	
Section between Richmond and Bay Bridge.	J/F '46 p35
Aerial view, looking north.	M/J '49 p9
Looking south from temporary connection to Oakland city street	M/J '49 p10
system at Fallon St.	
Completed section opened to traffic on July 22, 1949.	J/A '49 p40
Charles H. Purcell cuts barrier as official group looks on.	J/A '49 p40
Antique vehicles take part in "Parade of Transportation."	J/A '49 p41
Crowd gathers near 23rd. Ave. overpass at dedication.	J/A '49 p41
Near Davis St., San Leandro, showing built up subdivisions on each side	3.5/4./5040
of freeway right-of-way.	M/A '50 p10
Completed section just north of 98th Ave., Oakland.	M/A '50 p11
Section near Hegenberger grade separation.	J/F '50 p19
Section near High St. separation (under construction).	J/F '50 p20
Section near 42nd. Ave. interchange, High St. separation in foreground.	J/F '50 p20
Motorcycle escort leading parade of official cars after dedication of	J/A '50 p23
23rd. Ave98th Ave. unit in Oakland.	J/A '50 p23
C.H. Purcell and Thos. E. Caldecott cut ribbon at dedication.	J/A '50 p23
Oakland section showing 19th, 23rd., and 29th. Ave overcrossings.	S/O '50 p111

ROUTES Alameda Co., Continued

ROUTES Alameda Co., Continued	
R.M. Gillis severs ribbon near Lewelling Blvd., San Lorenzo.	J/A '52 p42
Official party at ribbon cutting ceremony near 98th Ave. separation.	J/A '52 p42
Washington Ave. interchange unit (San Lorenzo). J/A '52 p50; J/A '53 p42;	M/A '54 p13
Construction at Trimble Rd. overcrossing between [Rt. 68] and Warm Springs.	J/F '53 P7
Construction at Shallenberger-Brokaw Rd.	J/F '53 P8
Winterbauer pit located 2.5 miles east of job.	J/F '53 P9
San Leandro section of freeway seen from air.	J/A '53 p43
Oakland unit in vicinity of 29th Ave.	M/A '54 p11
At connection to Bayshore Hwy. (US 101-By.)	M/A '54 p13
Trimble Rd. interchange unit and Ford plant at Milpitas.	M/A '54 p15
Section from 11th/Cypress St. to Market St. in Oakland. M/J '55 p36;	M/A '55 p9
Construction underway along Cypress St. M/J '55 p36;	M/A '57 p10
First completed unit of Eastshore Fwy. north of Distribution Structure.	M/A '55 p8
Construction between University Ave. interchange and El Cerrito Overhead.	M/A '55 p8
Construction on Rt. 238 [Rt. 228] connections between I-880 at San Lorenzo	W/A 33 po
and Castro Valley; [Rt. 228] connection at Washington Ave interchange.	M/A '55 p10
Section from East 14th St. Interchange.; From University Ave. north.	M/A '56 p11
Oakland; Completed portion from Market to 10th.; Section at Jones Ave.	M/A '56 p12
	-
Construction between Beard Rd. and Jackson St. in Hayward. Official party at ribbon-cutting dedicating Jackson St. unit.	M/A '57 p9
	J/F '58 p58
Looking north from the Alverado-Niles Rd. interchange.	M/A '58 p4
Eastshore Fwy. looking north from Warm Springs.	M/A '58 p15
Fallon-Market St. unit.	M/A '59 p13
Landscaping on section in Oakland.	N/D '60 i.cvr.
Mountain Blvd. freeway, completed portion of at Park Blvd interchange.	M/A '57 p13
Niles Canyon	a (20 4
Narrow roadway with blind curves over railroad tunnel.	S '38 p1
Niles Canyon, showing channel change and new highway.	N '40 p8
Detail of boulder facings set in Portland cement for slope protection.	N '40 p10
Park Blvd. improvement at intersection with Leimert Ave. (Oakland).	J/A '55 p19
Aerial view of Park Blvd from Excelsior Blvd. to Estates Dr.	J/A '55 p20
Rt. 24 near Gateway Blvd. widened to eight lanes.	M/J '65 p24
Rt. 84 [Rt. 107]	
Impediment to smooth flow of traffic near Sunol.	F '38 p12
Completed highway directly west of Sunol, looking toward Niles Canyon.	Jan '42 p11
Santa Rita Rd. [FAS 1019] in Pleasanton, reconstructed portion of.	S/O '59 p48
Warren Blvd. section between Redwood Rd. and Lincoln Ave., Oakland.	M/A '60 p27
Warren Blvd. Fwy. (Rt13) [Rt. 24] at Moraga Ave. Interchange.	M/J '64 p29
Alpine Co.	
Rt. 88; Carson Pass Hwy.	
Pioneer route over Kit Carson Pass.	S/O '50 p51
Carson Pass Hwy. ca. 1950.	S/O '50 p51
Realigned section of Rt. 88 at Woodfords.	S/O '64 p2
Summit of Kit Carson Pass.	S/O '64 p9
Logging trucks on improved section of Rt. 88.	S/O '64 p11
Red Lake-W. Fork Carson River unit	-
Sections under construction looking westerly toward Red Lake.	S/O '57 p35
East end of project; Looking northeasterly near Blue Lake Rd.	S/O '57 p36
•	=

ROUTES Alpine Co., Continued	
Rt. 89 Ebbetts Pass HwyUS 395 junction (Mono Co.) FAS project	
Looking west up Slinkard Canyon before blasting; after shooting boulders.	N/D '50 p28
Bulldozer moving rock after shooting.	N/D '50 p28
Looking west before construction with dotted line indicating route.	N/D '50 p29
After construction.	N/D '50 p29
Wanda Durkee (Mrs. Frank B.) snips ceremonial ribbon.	S/O '54 p23
Scene at dedication; Alpine Co. Supervisor H.B. Burns at dedication.	S/O '54 p23
Section of new road.	S/O '54 p24
Typical damage due to heavy spring runoff.	M/J '57 p33
Amador Co.	
Rt. 16; Jackson Hwy. [Plymouth Rd.]	
Jackson unit dedication	
Homer P. Brown (CHC) addressing celebrants at Jackson.	S/O '48 p3
Official group at ribbon cutting ceremony for new Jackson Hwy.	S/O '48 p3
Congested route through Jackson before new highway was built.	S/O '48 p4
Old entrance to Jackson; new alignment.	S/O '48 p4
State Hwy. Engineer George T. McCoy at Jackson celebration.	S/O '48 p5
Jackson highway near new bridge at Rt. 88/Rt. 49 junction.	S/O '48 p5
Sloughhouse unit	
Existing narrow bridge approach to Sloughhouse.	S/O '48 p34
Grading cut on new alignment.	S/O '48 p34
Heavy equipment used in grading for Sacramento-Jackson Hwy.	S/O '48 p35
Unpaved section of Plymouth Rd. near Sloughhouse, ca. early 1900s.	M/J '64 i.cvr.
Same section with 15' portland cement concrete roadbed.	M/J '64 i.cvr.
Same section of pavement, 1964; Realigned portion of road, 1964.	M/J '64 i.cvr.
Rt. 49 (Mother Lode Hwy.) in Jackson.	S/O '45 p5
Rt. 88; Carson Pass Hwy.	
Construction between Jackson and Pine Grove.	J/A '54 p36
Grading between Amador Co. line and two miles easterly.	J/A '54 p36
Construction underway near Jackson.	J/A '58 p21
Unpaved section between Ione and Martell.	M/J '59 p38
Martell Junction approaching Rt. 88/Rt. 49 split.	J/A '59 p47+
Rt. 88 looking toward Jackson. J/A '59 p48;	S/O '64 p10
Widened section at Carson Spur.	J/F '61 p11
Highway around Carson Spur before construction.	J/F '61 p12
Widened section at Carson Spur near Mosquito Lake.	J/F '61 p12
Sign warning motorists of road construction ahead on Rt. 88.	S/O '64 p2
Panther Meadow east of Hams Station.	S/O '64 p3
Junction of Rt. 88 and Climax Rd.	S/O '64 p4
Logging truck on curving section of Rt. 88.	S/O '64 p6
Close-up views of heavily laden logging trucks on improved section.	J/F '44 p9
Power shovel loading granite rock on dump trucks after blasting	
operations near Silver Lake; Portable "hot plant" near Silver Lake.	S/O '64 p7
Asphalt spreader and bottom-dump truck in operation between	
Peddler Hill and Tragedy Springs.	S/O '64 p8
Prize-winning section of Rt. 88 as it passes Silver Lake.	M/A '66 p28+
Scenic section of Rt. 88.	M/A '66 p32

ROUTES, Continued Butte Co.

tte Co.	
Chico Esplanade	
Early day photo of Chico Esplanade.	M/J '49 p11
View of Esplanade at Memorial Way.	M/J '49 p12
Outer highway of Esplanade between 2nd. and 3rd. Ave.	M/J '49 p12
Traffic movement at the junction of 4th Ave. with the Esplanade.	M/J '49 p13
Parking along the outer highway. [US 99E]	M/J '49p13
Chico Esplanade near Memorial Way after widening.	J/F '60 p53
Chico, Main St.; one-way couplet which takes Rt. 99 traffic through the city.	J/A '59 p26
Chico-Paradise Skyway [FAS Rt. 757] dedication	
Deputy Director of PW Frank Durkee, Butte Co. Supervisors	
Frank L Patty and John N. Bille at ribbon cutting ceremony.	N/D '50 p14
Completed section of Chico-Paradise Skyway.	N/D '50 p15
View of Skyway showing sheer walls of lava cap.	N/D '50 p15
Easterly view showing right-of-way constructed between railroad	
embankment and edge of bluff.	N/D '50 p16
Typical construction difficulties encountered during project.	N/D '50 p16
Oroville Bypass at junction with Rt. 70 and Oroville-Richvale highway.	J/F '56 p50+
Rt. 32; improved section between Chico and Hog Springs.	J/A '58 p7
Improved section of improved Rt. 32 east of Chico.	J/A '58 p8
Official party at ribbon-cutting opening improved section of Rt. 32.	M/A '58 p45
Rt. 70; Feather River Hwy. [US 40-Alt.; Leg. Rt. 24]	1
Crowd of celebrants gathered at portal of Grizzly Dome to participate	
in dedication of Feather River highway.	Aug '37 p7
Gov. Merriam, Director of PW Earl Lee Kelly, and Chief Winnemucca.	Aug '37 p7
Feather River Hwy. soon after completion.	May '38 p15
Arch Rock.	M/J '50 p45
Aerial photograph showing proposed relocation of Feather River Hwy.	J/A '53 p32
Near future intersection of relocated Rt. 70 and Pentz-Cherokee Rd.	S/O '57 p27
Cleared area for new roadway east of the W. Branch of Feather Rvr.	S/O '57 p28
Cut and fill operation in vicinity of Yankee Hill Rd.	S/O '57 p28+
Project manager, District Construction Engineer, and Resident Engineer	1
viewing plans of project.	S/O '57 p28
New alignment near Flag Canyon Br. site.	S/O '57 p29
New alignment at intersection with Clark Rd.	S/O '57 p29
Wicks Corner-Jarbo Gap relocation.	J/A '58 p7
Large benched cut south of W. Branch Br.	J/A '59 p29
Heavy grading work on Rt. 70 [US 40-Alt.] relocation.	J/A '59 p30
Relocated freeway (Rt. 70) leading toward Jarbo Gap.	M/J '64 p57, 60
Relocated Rt. 70 [US 40-Alt.] near junction with Oroville Dam Blvd.	M/J '64 p57
Oroville-Wicks Corner section approaching Grand Ave. interchange.	M/J '64 p58
Relocated section near Rt. 191 turn-off.	M/J '64 p58
Narrow N. Fork Feather Rvr. Canyon, before being inundated by reservoir.	M/J '64 p59
Section of old Feather River Hwy., closed to traffic.	M/J '64 p59
Section near Garden Ave. interchange.	M/J '64 p62
Wicks Corner intersection; New alignment at Wicks Corner.	M/J '64 p62
Four-lane section northeast of W. Branch Br.	M/J '64 p62
Rt. 99 [US 99E] near Durham after resurfacing.	J/F '45 p28
Oroville Wye and Chico section after relocation.	J/F '55 p39
Ribbon cutting ceremony with official party at dedication.	J/F '55 p40
Section through Chico near Bidwell Park.	N/D '66 p22
Zaran	00 P22

ROUTES, Continued

Cala	veras	Co.
Caia	v CI as	CU.

Calaveras Co.	
Rt. 26 [Rt. 5] access road	
Equipment grading line change on new route over Mokelumne Hill.	M/J '44 p10
Lumber trucks hauling heavy loads over steep grades and sharp turns	
on old road east of Mokelumne Hill.	M/J '44 p11
Big load of logs tops summit of McFadden Hill on new, wide highway.	M/J '44 p11
View east of Flume House Hill.	M/J '44 p11
Rt. 49 (Mother Lode Hwy.); obsolete road approaching Carson Hill.	Mar '39 p11
Colusa Co.; I-5 [US 99W] section through Arbuckle near Hall St. overcrossing.	J/A '58 p6
Contra Costa Co.	•
BART construction	
Full-scale model of BART car; Laboratory car on test track.	J/A '66 p36
Section of BART test track near Concord.	J/A '66 p36
Attendant's seat for monitoring automatic control.	J/A '66 p36
BART aerial transit line built near Walnut Creek as test track.	J/A '66 p37
Byron Hwy. [county road] after improvements.	N/D '53 p15
Crow Canyon Rd., summit cut on improved section of road.	N/D '49 p22+
Cummings Skyway near interchange connecting it to I-80 [US 40].	S/O '61 p60
FAS highway and intersection near Martinez.	N/D '54 p29
I-80 [US 40]	·· - F
Carquinez Br. approaches	
Excavation material from the "big cut" being placed in a fill.	J/F '57 p38
Tandem hookup consisting of one tractor and one operator hauling	
two scrapers ascending top of "big cut."	J/F '57 p42
Tandem scrapers being loaded.	J/F '57 p42
"Big cut" on section approaching Carquinez Br.	M/A '57 p16
Work on "big cut" to the south of main bridge approach.	J/A '57 p36
Roadwork on Vallejo side nearing completion.	J/A '57 p36
Under construction near Crockett.	M/A '58 p9
"Big cut" completed.	J/F '59 p5
Approaches to Carquinez Br. through manmade "Big Cut" canyon.	J/F '59 p58
Completed I-80 [US 40] through Richmond looking north.	M/A '57 p16
Approaches at southern end of twin spans	J/F '59 p8
Section looking south through "big cut" from Carquinez bridges.	M/A '59 p1
Looking southward over Crockett Interchange from Carquinez Br.	M/A '60 p18
Highway detour and bridge operations on Pinole.	F '39 p21
Richmond section of freeway.	J/F '64 p16
Rodeo; I-80 [US 40] prior to elimination of left turns.	N/D '52 p24
San Pablo Dam Rd. at intersection with San Pablo Ave. showing clearance	10 52 p2 i
underway for future freeway, 1954.	J/F '64 p16
Section at Carlson Blvd. off-ramp during final phase of construction.	J/A '60 p57
Section in Richmond near Carlson Ave. interchange.	J/A '60 p61
Completed six-lane section in Richmond. N/D '60 p42;	M/J '61 p33
Section of I-80 [US 40], former route of Don Pedro Fages ca. 1772.	S/O '50 p13
Section near Oleum opened in Feb 1958.	M/A '58 p7
Section near San Pablo Dam Rd. looking toward Richmond.	M/A '58 p7
Traffic detoured around construction on El Cerrito Overhead.	J/A '60 p58
and a second and an a second of the second o	P

ROUTES, Continued

OUTES, Continued	
I-680 [Rt. 107]	
Monument Blvd. near Walnut Creek Br., after widening.	M/J '65 p30
Section at S. Main St. Interchange in Walnut Creek. M/A '60 p28;	M/J '60 p28
Section near Danville showing proposed route of realignment.	M/J '61 p16
Section in Pleasant Hill between Monument Blvd. and Willow Pass Rd.	M/J '64 p31
Section between Walnut Creek and Danville.	M/J '65 p31
Taylor Blvd. at intersection with I-680 [Rt. 21].	S/O '61 p62
Mountain Blvd expressway under construction near La Salle Ave.	M/A '56 p10
Completed portion near Moraga-Thornhill intersection.	M/A '56 p10
Pleasant Hill Rd.	N/D '54 p28
Richmond access road projects	1
I-80 [US 40]/Gilman St. intersection, showing island under construction.	N/D '44 p3
14th St., Richmond looking north from rear entrance to Shipyard No. 1.	N/D '44 p4
Richmond access road, looking north from El Cerrito Overhead.	N/D '44 p4
Rt. 4; [Arnold] Industrial Hwy. [Rt. 75]	·· • • • • • • • • • • • • • • • • • •
Scenic view across Diablo Valley.	O '39 p20
Section between Willow Pass and Franklin Canyon.	O '39 p21
View looking westerly through deep cut near east end of Willow Pass.	O '39 p21
Pioneering cut on Willow Pass [Industrial] Hwy.	J/F '47 p19
Franklin Canyon, equipment working on new grade of relocated section.	N/D '43 p8
Excavating cut for new alignment; Dragline placing drainage pipe.	N/D '43 p9
Pt. Chicago Rd-Railroad Ave. unit, traffic congestion on.	M/A '51 p18
Curving approaches to narrow subway on existing highway.	M/A '51 p19
Aerial view of underpass with new highway in immediate foreground.	M/A '51 p19
Completion of surfacing in section of project.	M/A '51 p19
Connection to Port Chicago Rd. under construction.	M/A '51 p19
Dedication at Port Chicago end of freeway.	J/A '51 p19
Caravan going over new highway.	J/A '51 p19
New section of highway looking west.	J/A '51 p19
Joe Arnold cuts ribbon opening new section of Arnold Fwy.	J/A '51 p20
Pittsburg-Antioch unit	3/11 31 p20
Paving operations in progress near SP spur track overcrossing.	N/D '52 p5,7
Aerial view of construction showing railroad spur overcrossing.	N/D '52 p6
View west from Camp Stoneman underpass.	N/D '52 p7
Intersection of California Ave. with existing Rt. 4 east of Pittsburg.	N/D '52 p7
Contractor's concrete batching plant.	N/D '52 p8
Easterly terminus of construction entering Antioch near A St.	N/D '52 p5,7
Rt. 17 [Rt. 69] under construction through Richmond near San Pablo Ave.	M/A '56 p13
Rt. 24 [Oakland-Walnut Creek arterial]	W1/11 30 p13
Caldecott Tunnel approaches	
Grading in progress for additional lanes approaching tunnel.	M/J '61 p17
Construction on 8-lane freeway near east portal Caldecott Tunnel.	M/J '64 p32
Freeway widening underway approaching Caldecott Tunnel.	N/D '64 p13
Construction on Rt. 24 freeway section paralleling Mt. Diablo Blvd.	J/F '64 p16
Lafayette Bypass under construction near Pleasant Hill Rd. interchange.	M/A '57 p15
Dedication, official party at ribbon-cutting ceremony.	J/A '57 p21
Helicopter instead of traditional shears used to cut barrier tapes.	J/A '57 p21 J/A '57 p22
Trencopter instead of traditional shears used to cut barrier tapes.	31 A 31 p22

ROUTES Contra Costa Co., Continued	
Orinda Junction sectionSee also EROSION CONTROL	N/D '43 p18
Orinda slide section of Rt. 24, rebuilt as 4-lane divided highway.	N/D '43 p19
Section over Charles Hill.	N/D '43 p19
Orinda, showing improvements made at Rt. 24 crossroads.	M/A '54 p17
Orinda Crossroads [formerly Bryant] in 1910.	N/D '54 p46
Orinda in 1953, prior to construction.	N/D '54 p48
Morning traffic back-up one mile east of Orinda signal.	N/D '54 p48
Afternoon traffic back-up near east portal of Broadway Tunnel.	N/D '54 p48
Rt. 24 at Orinda, where BART trains will run in median.	J/A '66 p37
Section north of Walnut Cr. near Geary Rd.	M/A '57 p14
Section near Oak Park Blvd. interchange.	M/A '57 p14
Section at Acalanes Valley Rd. interchange looking east toward Mt. Diablo.	M/A '60 p21
Section at Oak Park Blvd. Interchange, looking northerly.	M/A '60 p24
Walnut Creek Bypass under construction.	M/A '59 p52
Walnut Creek Bypass between Orinda and Lafayette.	M/J '60 p27
"Y" interchange in Walnut Creek.	M/J '60 p28
Wilbur Ave., an industrial highway east of Antioch.	J/A '59 p43
Ygnacio Valley Rd. Extension limited access expressway.	M/J '56 p69
Del Norte Co.	The second
US 101	
Blasting scene in forest to remove legion of stumps.	S/O '54 p40
Clearing through area of dense second-growth redwood forest.	S/O '54 p41
Digging out road by hand after slide, 1925.	J/A '64 p32
Expressway under construction near Wilson Creek Br.	M/A '57 p68
Grading line change on north bank of Smith River.	J/F '45 p5
Grading progress on portion relatively clear of brush or trees.	S/O '54 p63
Improved section of US 101 through Crescent City.	N/D '59 p35
Ocean front section of US 101 near Wilson Creek.	S/O '64 p18
Plank road near Crescent City ca. 1915.	M/J '64 p10
Section south of Crescent City, 1915.	J/A '64 p24
Poorly aligned section.	S/O '54 p40
Section which required sidehill viaduct construction to widen, 1931.	J/A '64 p30
US 199; Hazel Summit area, late 1920s.	S/O '60 p3
Broken Kettle Cr., future location of reconstructed US 199.	S/O '60 p4
Completed rough grade of north Collier [Hazelview] Tunnel approach.	M/J '61 p29
Old roadway, showing clearing work underway for new alignment.	M/J '61 p30
Realigned approach to Collier Tunnel.	S/O '64 p23
El Dorado Co.	r
Rt. 193 [Rt. 93] near Georgetown. J/A '58 p1	
US 50	
Aukum Rd. realignment project, aerial view of construction area for.	M/A '61 p28
Bijou section after widening.	S/O '57 p45
Camino Bypass on US 50.	J/A '58 p1
Echo Summit-Meyers Grade sectionSee also SNOW	1
Partially completed relocation on east side of Echo Summit.	Aug '38 p4
Power shovel makes final cut for Meyers grade relocation.	Aug '38 p5
Construction looking south toward Luther Pass, showing portions of	0 1
old Hawley Grade.	Aug '38 p4
View of Echo Summit relocation looking toward Lake Tahoe.	Aug '40 p19
Meyers Grade between Echo Summit and Lake Tahoe.	N/D '47 p18
C. H. Purcell with Gov. Vail Pittman (Nevada) at dedication of	
Meyer's grade project.	N/D '47 p30

ROUTES El Dorado Co., Continued

ES El Dorado Co., Continued	
Constructing realignment from the foot of Meyers Grade to Mays.	J/A '50 p45
Existing highway on left, realignment on right.	J/A '50 p45
Rebuilding US 50 over Myers Grade, 1940.	J/A '60 p55
Old Johnson Cut-off emigrant trail-Meyers Grade before modernization.	S/O '50 p54
Echo Summit ca. 1950, replaces Johnson Cut-off and old Meyers Grade.	S/O '50 p55
US 50 west of Echo Summit.	Jan '42 p23
Five Mile Terrace-Camino expressway dedication, stagecoach used in	•
ribbon-cutting ceremony.	N/D '57 p21
Folsom-Clarksville realignment under construction.	Apr '40 p21
Shovel engaged in heavy excavation work east of Folsom.	Apr '40 p20
Realignment east of Folsom.	N '40 p23
Cut through solid rock where blasting was necessary.	N '40 p23
Clarksville grade on realigned section.	N '40 p22
Realignment east of Clarksville.	N '40 p24
Fresh Pond-Pollock Pines Forest Hwy.	1, 10 p2 i
Forest highway between Fresh Pond and Pollock Pines taking shape.	M/J '46 p2
Completed section, constructed by U.S. BPR.	N/D '47 p14
Fresh Pond section.	N/D '47 p15
Lake Tahoe Wagon Rd. (historic)	10/D 17 p15
Rubble retaining wall built by state on Lake Tahoe Wagon Rd.	S/O '50 p86
Granite mile post erected by state on Lake Tahoe Wagon Rd.	S/O '50 p86
Lake Tahoe Wagon Rd. showing remains of old corduroy road.	S/O '50 p87
Lake Tahoe Wagon Rd. crossing S. Fork American River at Riverton.	S/O '50 p91
Latrobe Rd intersection after removal of cut bank.	J/A '59 p28
Placerville Fwy.	3/A 39 p26
Under construction	N/D '51 p22
East end of project; Section of improved highway before striping.	N/D '51 p23
Aerial view of existing route, proposed route through Placerville.	N/D '52 p59
Construction operations looking easterly.	S/O '54 p5
Realigned US 50 between Clarksville and Shingle Springs.	N/D '55 p10
Traffic congestion through Placerville before expressway.	N/D '55 p10
Aerial view of beginning of project.	N/D '55 p11
End of project near Washington St. showing Placerville	N/D 33 p12
	N/D '55 n12
Fruit Growers pear packing plant.	N/D '55 p12
Camino, Placerville, and Lake Tahoe RR truss that was salvaged	N/D '55 12
and used to span a grade separation during construction.	N/D '55 p13
West of Placerville, showing initial two lanes of future 4-lane freeway.	N/D '58 p7
Placerville-Lake Tahoe Forest Hwy.	M/J '50 p18
Pollock Pines freeway section.	N/D '65 p15
Pollock Pines Bypass on US 50; Road entering Pollock Pines.	J/F '66 p32+
Shingle Springs-El Dorado unit	M/T 546 1.1
Grading operations near Shingle Springs.	M/J '46 p11
Looking from Windmill Hill toward Shingle Springs showing clearing	3.4/T.4.4.C
and old pioneer grading, existing highway in middle ground.	M/J '46 p4
Hazardous curve to be eliminated by US 50 realignment.	M/J '46 p11
Realigned section.	N/D '47 p13
South shore Lake Tahoe section under construction, looking east.	N/D '57 p13
US 50 in the High Sierra near the base of Lovers Leap, 1912.	J/A '61 p61
Webber Creek BrClark's Corner unit, old alignment	D '37 p19
Realignment across site of new Webber Creek Br.	D '37 p19
Sharp curve between Clark's Corner and El Dorado to be eliminated.	D '37 p19

ROUTES, Continued

•	
Fresno	1 '0
I'I CSHO	v.v.

esno Co.	
Blackstone Ave. (Rt. 99 [Rt. 4] through Fresno, after widening.	N/D '58 p5
I-5 [Westside Fwy.]	
Adopted routing near junction of Fresno-Coalinga Rd. and Rt. 33.	S/O '60 p55
Construction underway at site of future Panoche Rd. interchange.	M/A '66 p37
I-5, where "vines and crops, pasture and rangelands sweep the horizon."	M/J '66 p25
Rt. 33 [Rt. 138], heavy truck load of oil field equipment on.	N '38 p1
Rt. 41	
Steep, narrow mountain grade east of Dunlap.	N '38 p1
Section near Mendota, subjected to flooding every winter.	N '38 p3
Sections of realignment between Fresno and Yosemite Valley.	N '41 p17
Rt. 43 [Rt. 135], an oiled earth surface road.	
Truck and trailer loads of baled cotton on [Rt. 135]	N '38 p2
Rt. 99 [Leg. Rt. 4]	
Improved section at north boundary of city of Fresno.	Aug '37 p19
Divided highway between Fresno and Herndon. Aug '37 p19;	F '38 p24
Relocation in Fresno looking northerly toward Cedar Ave. intersection.	N/D '46 p33
Palm tree in center divider at Orange Ave. intersection (Fresno).	N/D '46 p33
Channelization at Cedar Ave. intersection (Fresno).	N/D '46 p33
Channelization islands on Selma link of Rt. 99.	F '39 p18
Selma Link, general views of.	F '39 p19
Rt. 99 at Fresno, showing California and Monterey Ave. overheads.	S/O '50 p109
Divided section between Selma and Fowler.	N '43 p23
Trees that bordered old highway roadside used as division strip.	N '43 p23
Fresno Bypass under construction.	S/O '55 p27
Fresno Fwy. construction, indicating locations of planned structures.	S/O '55 p28
Fresno, showing clearing for future Rt. 99 construction.	S/O '54 p2
Official party at grape-rope-cutting ceremony dedicating bypass.	N/D '57 p23
Parade of first cars to use bypass.	N/D '57 p23
Aerial view of Fresno Bypass and environs.	N/D '57 p24
Construction north of Fresno near Dakota Ave and Ashland Ave.	S/O '59 p8
Widened section near Tower overcrossing and Ashland Ave. interchange.	J/A '60 p7
Section at north end of project near Herndon Ave. overcrossing.	J/A '60 p8
Freeway section at Highway City near Shaw Ave. interchange.	J/A '60 p8
Fresno freeway, eliminating last 3-lane section of US 99.	N/D '60 p14
Fresno end of relocation project near connection to Golden State Blvd.	J/F '65 p18
Ramps with temporary connections to California Ave. indicate diagonal	
alignment of future Rt. 41 into downtown Fresno.	J/F '65 p18
Rt. 145; Fresno-Colinga road southwest of Five Points.	S/O '47 p25
Rt. 168 [Rt. 76]	
Crossing Rancheria Cr. at Huntington Lake.	S/O '58 p40
Improved section near Huntington Lake.	S/O '59 p7
Lumber trucks on narrow grade of [Rt. 76].	N '38 p1
Rt. 180 (Kings River Canyon Hwy.)	
View down Kings River toward mouth of Boulder Creek.	Jul '38 p5
Windy Cliff crossing of Kings River under construction.	Jul '38 p6
Cliff face typical of many that had to be blasted.	Jul '38 p6
Parking area at Windy Cliff River crossing on Kings River Hwy.	Jul '38 p7
Section between Grizzly and Boulder Creek.	N '39 p6
View on floor of valley east of Cedar Grove.	N '39 p8
Along the river near Deer Cove Cr.	N '39 p8
Bend in highway east of Boulder Creek.	N '39 p9

R	OUTES Fresno Co., Continued	
	Highway skirts base of massive cliffs.	N '39 p9
	Official group at Kings River Canyon dedication.	N '39 p23
	Constructing rock retaining wall on PWA link of Grant Park approach road.	Jun '40 p19
	Drilling for removal of cliff.	Jun '40 p19
	Windy Cliff on Kings River Canyon Hwy.	S/O '45 p6
	Construction on access road to Gen. Grant National Park, early 1940s.	J/A '60 p55
	Panorama from highway showing new alignment of Squaw Valley route	•
	to Kings Canyon Park.	N '41 p8
	New unit on realignment between Squaw Valley and Dunlap.	N '41 p9
	Modern type mountain road in Squaw Valley area.	N '41 p10
	Shovel and trucks at work on Kings River Canyon unit.	N '41 p25
	Kings River Canyon Hwy.	M/J '50 p45
	Relocated section of Rt. 180 at crossing of Friant-Kern Canal.	S/O '59 p8
	Rt. 198, Warthan Canyon	
	Realigned road avoids dangerous stream crossing.	Aug '42 p2
	Typical road washout in Warthan Canyon.	Aug '42 p3
	Official party at Warthan Canyon dedication.	J/A '51 p22
	Wartham Canyon highway after improvement.	J/A '51 p23
	Official dedication party traveling on newly completed section.	J/A '51 p23
	Channel change and new road at Lone Pine Inn.	J/A '51 p24
	90-ft. hill cut approached by 2,500-ft. radius curve.	J/A '51 p24
	New 7,600-ft. tangent replaces winding road on right.	J/A '51 p24
	Sharp curve on old road near easterly end of project.	J/A '51 p24
	Group photo of "old timers" who worked on Warthan Canyon project.	J/A '51 p25
	Shields Ave. in Fresno.	S/O '65 p19
Ηu	imboldt Co.	
	Approach to Albion River Br.	J/F '45 p29
	Logging truck maneuvering winding section of county road.	M/A '52 p18
	Road obtained by county through reconstruction; Same, after improvement.	J/F '45 p6
	Rt. 299 [US 299]	
	Logging trucks waiting to use road during widening operations.	M/J '47 p26
	Logging truck negotiating curves and steep grade on US 299.	M/J '47 p28
	Partially completed widening between Blue Lake and Redwood Summit.	M/J '47 p29
	Mad River-Blue Lake Fwy. section near Glendale overhead.	J/A '66 p28
	Asst. State PW Director T. Fred Bagshaw at freeway dedication.	J/A '66 p29
	Industries on Parade lumber truck breaks ribbon at official opening.	J/A '66 p29
	Harold Hunt, president, Hwy. 299 Assoc. receives hard hat award for	
	his highway improvement promotion work.	J/A '66 p29
	US 101 (Redwood Hwy.)	
	Avenue of Giants Pkwy., off-ramp leading to.	S/O '60 p70
	US 101 through Avenue of the Giants.	S/O '64 p15
	Blair-Lansdale State Park on Redwood Hwy.	M/J '56 p28
	Freshwater Lagoon as seen from Lookout Point.	M/A '49 p16
	Restricting alignment and heavy hauling on highway.	M/A '49 p17
	Logs and debris carried onto Freshwater Sandspit by ocean tide,	3.5/1. / 10. 10.
	showing where new highway is to be constructed.	M/A '49 p18
	Large piece of driftwood on sandspit.	M/A '49 p18
	Route of proposed highway across Freshwater Sandspit.	M/A '49 p19
	Construction in progress north of Stone Lagoon Summit.	N/D '49 p13
	Grading operations at Stone Lagoon Summit, south end of project.	N/D '49 p13
	Completed 220-ft. high cut at Lookout Point.	N/D '49 p14
	Highway along sand pit with Freshwater Lagoon on right, ocean on left.	N/D '49 p14

ROUTES Humboldt Co., Continued

Es Humbolat Co., Continued	
Freshwater Lagoon south of Orick, US 101 rerouted along sandspit.	J/A '58 p39
4-lane fill, and timber trestle it will replace near Big Lagoon.	J/A '58 p41
Patricks PtBig Lagoon freeway under construction.	N/D '59 p36
Freshwater Lagoon section south of Orick.	S/O '64 p22
Fortuna-Fernbridge freeway under construction.	N/D '59 p38
Garberville section of US 101. Jan '39 p5; M/J '56 p25+; S/O '64 p17;	M/A '66 p18
Redwood Hwy. through Garberville, 1914.	J/A '64 p27
G St. between 3rd and 4th Streets in Eureka, 1864.	M/J '64 p3
High water on Salt Rvr. near Ferndale, 1909.	M/J '64 p9
Holbrook Grove section.	M/J '56 p26
Little River-Trinidad unit	1
Improvement at beginning of project near Little River.	J/A '60 p23
Construction underway near Little River Beach.	J/A '60 p24
Drain outlets at former slide area.	J/A '60 p23
Loleta Bypass	0/11 00 p25
New highway under construction viewed from Hookton Rd.	M/A '57 p52
Stabilization trench right angles to centerline.	M/A '57 p53
On top of Table Bluff Hill in thorough cut.	M/A '57 p53
Stripping wet material and constructing stabilization trench.	M/A '57 p55
Construction at north end of project looking northerly.	M/A '57 p55
Completed Loleta Bypass.	M/A '58 p17+
	-
McKinleyville Fwy section.	J/F '65 p31
Aerial view of McKinleyville Fwy. near Clam Beach Interchange.	J/F '65 p32
Vista Point parking area.	J/F '65 p33
Section at Crannell Interchange.	J/F '65 p34
Michael J. Burns Fwy. [Arcata Bypass]	0/0/52 2
Traffic through Arcata before bypass.	S/O '53 p2
Construction near 11th St. (Arcata)	S/O '53 p3
Construction at north and south ends of project.	S/O '53 p4
Bulldozer removing unstable material under bridge on bypass.	S/O '53 p5
Logger cuts through redwood trunk to officially open freeway.	S/O '54 p56
Speaker's platform at dedication.	S/O '54 p57
Mrs. Michael J. Burns with family members and members of county	
Chamber of Commerce at rededication of Michael J. Burns Fwy.	N/D '54 p37
Gov. Knight, Sen. Randolph Collier, and Mrs. Michael J. Burns with	
sign for Burns Memorial Fwy.	S/O '55 p25
Ribbon-cutting ceremony for signing freeway.	S/O '55 p25
Arcata Bypass on US 101 near 9th and 14th St. Overcrossings.	J/A '58 p45
Reconstruction north of Arcata at US 101-Rt. 299 interchange.	J/A '58 p43
Redwood stumps which were removed to widen highway.	Jun '37 p21
Richardson's Grove State Park section. Jan '39 p5;	M/J '56 p26+
Measuring distance between trees in Richardson Grove vicinity, 1930.	J/A '64 p31
Scotia Bypass slide area.	S/O '53 p7
South end of project at connection to old highway.	S/O '53 p7
Completed section of freeway.	S/O '53 p7
Reinforced concrete crib near Scotia.	S/O '53 p9
Section of Scotia Bypass.	J/A '58 p38
Section south of Eureka near Southern Humboldt Bay.	S/O '64 p18
Sharp, reversing curves south of Orick.	Jan '39 p4
Survey crew fording Eel River while laying out original Redwood Hwy.	27 P'
route through S. Fork Canyon.	J/A '64 p26
Survey crew moving camp while developing S Fork route.	J/A '64 p26
on of our morning camp winter developing of our foute.	5/11 0 1 P20

ROUTES Humboldt Co., Continued Sylvandale-Dean Creek freeway section. N/D '65 p17 Trinidad-McNeill's Ranch link looking north across Mill Creek showing rolling grade of existing road. Jun '37 p21 US 101; Redwood Parks Fwy. [Redwood Bypass] M/J '56 p25 Terrain to be traversed by freeway near S. Fork Eel Rvr., Phillipsville. Portions of Redwood Hwy. to be superseded by freeway. M/J '56 p25+ "Big Cut" construction Earthmover being towed up the face of the highest cut in California road building history. S/O '57 p52 S/O '57 p52 Bulldozers pioneering up-ramp on north end of big cut. Detour bypassing big cut. S/O '57 p52 400-hp "donkey" engines hoisting earthmovers up steep up-ramp. S/O '57 p53 S/O '57 p53 Earthmovers descending up-ramp. Construction work near "Big Cut." M/J '58 p41 M/J '58 p42 Equipment at work on "Big Cut." J/A '58 p35 Section between Phillipsville and Arden. Expressway on US 101 between Robinson Ferry Br. and Alton. J/A '58 p44 Heavy grading operations for first unit of Redwood Bypass. J/A '58 p37 Completed first unit north of Dyerville at High Rock Rd. undercrossing. N/D '59 p31 N/D '59 p32 Cleared area prior to grading second unit between Myers and Dyerville. Completed first unit of Redwood Parks freeway near Englewood. N/D '59 p34 Freeway section near Myers Flat. S/O '64 p15 N/D '61 p10; Completed freeway section in northern Humboldt Co. N/D '61 p46 N/D '64 p5 Section south of Miranda. Scenic section of Redwood Fwy. along S Fork Eel River. M/A '66 p17 View across Mill Cr. showing new road alignment. Mar '38 p18 Imperial Co. Borrego Valley, now part of Anza State Park traversed by Anza expedition. S/O '50 p18 S/O '60 p64 Dogwood Rd. parallel to Dogwood Canal in El Centro. Dogwood Rd. in Brawley near Plaza Park, after improvement. S/O '60 p65 Imperial Valley road lower than fields and roadside irrigation canals. F '39 p3 I-8 [US 80], Mountain Springs Grade relocation. Official group at groundbreaking ceremony. N '38 p21 Dynamite blast set off by Gov. Merriam. N '38 p21 Winding section across mountains between Imperial and San Diego Co. N '38 p21 Equipment working on excavation of new Mountain Springs Grade. Apr '39 p16 Apr '39 p17 Construction scene on Mt. Springs Grade. I-8 [US 80], Sand Hills Giant sand dunes in which blocked the way of Anza and his men in 1774. S/O '50 p16 N/D '45 p10 Corduroy road across Yuma sand dunes west of Open Valley ca. 1915-16. N/D '45 p11 Modern highway which replaced the old plank road. Section of improved plank road, 1916. J/A '61 p13 Vehicle on plank road across sand dunes ca. 1916. S/O '50 p17 Remaining section of improved plank road built in 1916. J/A '61 p11 Dragline building an embankment on I-8 through Sand Hills, 1925. J/A '61 p12 Elevated highway through sand dunes, 1926. S/O '50 p17 Paving I-8 [US 80] in 1925. J/A '61 p12+ Vibratory compactor and dozer in operation during I-8 [US 80] reconstruction through Sand Hills. J/A '61 p14 Div. of Highways jeep on sand dune. J/A '61 p14 Base-spreading operations during I-8 [US 80] reconstruction. J/A '61 p15 Haul road for construction equipment crossing old highway. J/A '61 p15

ROUTES Imperial Co., Continued Aerial view showing location of borrow pit site in relation to construction. J/A '61 p16 Grading operations on I-8 [US 80] reconstruction. J/A '61 p16 All American Canal maintenance station and yard on old section of highway. J/A '61 p17 Construction on I-8 [US 80] near bridge across All American Canal. J/A '61 p11 Section through Sand Hills near All American Canal. J/A '61 p11; N/D '61 p16 I-8 [US 80]/Rt. 98 intersection in southwestern Imperial Co. N/D '58 p35 Secondary highways, before and after improvement. May '38 p22+ F '38 p15 Signs warning of traffic limitations on Niland-Mecca Road. Invo Co. Box Canyon on Westgard Pass. Jan '39 p6 Glacier Lodge Road before and after improvements. J/A '53 p57 Panamint Rd. Looking north into Panamint Valley showing old Nadeau Rd. J/F '51 p19 New road climbing out of Panamint Valley toward Wildrose. J/F '51 p19 New road at summit of Slate Range. J/F '51 p21 New road winding down slate range into Panamint Valley. J/F '51 p21 New road through Panamint Valley. J/F '51 p21 Plank road across sand dunes near Yuma, 1923. J/A '50 p16 Rt. 127 [Towne's Pass Hwy.], Death Valley National Monument section Rt. 127 before state took over maintenance and improvement. J/F '45 p31 New highway through Stovepipe Wells; Road through Panamint Valley. J/F '45 p31 Rt. 190; Lone Pine-Death Valley Hwy. Construction on new highway leading into Death Valley. Jul '37 p7 Jul '37 p7 Drillers at work on difficult stretch near Panamint Sink. Heavy equipment at work on grade which will do away with steep, narrow roadbed over Zinc Hill and Lane Hill. Jul '37 p7 Section of completed desert highway. Jul '37 p7 Official party at dedication. N '37 p6 View of new highway leading down into Panamint Sink. N '37 p6 Gov. Merriam, rifle in hand, rides as express messenger with driver Ollie Dearborn on Mt. Whitney-Death Valley stage. N '37 p7 Sam Ball, veteran prospector, hands gourd of water from Lake Tulainyo to Gov. Merriam while descendants of Jayhawker Party survivors look on. N '37 p7 N '37 p8 Gov. Merriam draws bead on ribbon barrier, officially opening highway. Death Valley section, looking towards Furnace Cr. N/D '45 p8 N/D '45 p8 Bad Water, lowest point in US. M/A '55 p19 New alignment on near Owens River Br. End of project near Keeler. M/A '55 p20 Beginning of project near junction with US 6/395. M/A '55 p20 Junction of old and new alignments. M/A '55 p20 Towne's Pass highway entrance to Death Valley National Monument, before and after views of newly realigned section. Jun '38 p25 J/A '60 p54 20-mule team and borax wagons on US 395 near Lone Pine, date unknown. US 395; Sherwin Grade Typical lava rock cut and junction with old high-way at foot of grade. N/D '56 p39 Aerial view of new highway on bridge with old road. N/D '56 p40 Looking northerly toward Bishop and White Mts. from north end of project. N/D '56 p40 Looking north from middle of project showing borrow areas on left. N/D '56 p40 4-lane section near Rock Cr. Canyon. N/D '56 p40 Volcanic pumice cut looking toward Bishop. N/D '56 p41 Typical long tangent on new highway. N/D '56 p41

ROUTES, Continued

Kern Co.

Bakersfield

Bakersfield	
Alfred Harrell Hwy. (FAS 885) looking east toward Panorama Dr.	M/A '60 p44
Garces Circle, improvements made to	M/A '57 p56+
Northbound frontage road entering Circle.	M/A '57 p57
Looking easterly along off-ramp from Rt. 99 to Garces Circle.	M/A '57 p57
Stretch of second-story concrete paving.	M/A '57 p58
Grove St.; four traffic lanes provided from center of city to south city limits.	S '37 p27
Section south of Bakersfield showing new wider traffic lanes.	S '37 C
N. Chester Ave. at entrance to county fair ground.	Jun '42 p16
Pierce Rd. relocation, looking northerly from Olive Dr.	J/F '49 p20+
Pierce Rd. Rotary and Rt. 99, aerial view.	J/F '49p19
Truxtun Ave. after widening and improvement.	N/D '60 p37
Union Ave. after improvements	N/D '47 p7
Intersection of Union Ave. and 24th St.	M/J '55 p18
Union Ave. at intersection with Rt. 99.	M/J '55 p19
Union Ave., Bakersfield after widening.	J/A '60 p53
I-5 [US 99]	0/11 00 p25
Bakersfield-Grapevine Hwy.	
Site of proposed new 4-lane divided highway north of Bakersfield.	Jan '43 p15
Old state highway will become southbound roadway of new highway.	Jan '43 p15
Existing trees will form a screen between the two roadways.	Jan '43 p15
Trees permitted to grow down to ground to form screen.	Jan '43 p15
Contractor's trucks on new future southbound lane of highway.	Jun '38 p8
Old road, which is being converted into a 4-lane divided highway.	Jun '38 p9
Section in Grapevine Canyon with metal plate road divider	Juli 36 p2
and concrete flume for creek.	M/A '43 p2
	F '41 p19
Grapevine Canyon, showing proposed fill and highway widening.	r 41 p19
Ridge Route-Grapevine CanyonSee also Los Angeles Co.	I/E 461 7
Steep cuts through Ridge Route, ca. 1915.	J/F '61 p7
Section of Ridge Route, 1920s.	J/F '61 p7
Old winding highway on Grapevine Grade.	S/O '50 p141
Section of portland cement concrete pavement near Fort Tejon.	Jul '37 p20
Completed section northerly from Gormon.	J/F '52 p29+
Special blocks on concrete apron to dissipate force of water at discharge	I/E (72 20
of channel on west side of road near Gormon.	J/F '52 p29
Aerial view at Lebec; Completed section southerly of Gormon.	J/F '52 p31
Grapevine Grade showing ca. 1957 highway, and old 1914 highway.	J/A '58 p11
Grapevine Canyon indicating location of proposed additional lanes.	J/A '58 p12
Grapevine Gorge section, looking north toward Bakersfield.	S/O '58 p42
Grapevine Grade section under construction near Ft. Tejon overcrossing.	S/O '59 p7+
Widened section through Grapevine Canyon.	S/O '60 p5
Temporary bridge constructed over highway for earth hauling purposes.	S/O '60 p6
Looking north from the canyon toward Grapevine Undercrossing.	S/O '60 p6
Looking north into canyon from section near Wheeler Ridge truck scales.	S/O '60 p7
Construction underway for Grapevine Grade widening project.	J/F '60 p37
Future bypass freeway route near Wheeler Ridge.	N/D '61 p18
Widened section of Ridge Route at Lebec.	N/D '64 p7
Eight-lane I-5 between Lebec and Ft. Tejon.	J/F '65 p21
Brake inspection/rest area along I-5.	J/F '65 p21+
Down-canyon view near Lebec; Southward view near Lebec.	J/F '65 p23
I-5 descending Grapevine Grade into San Joaquin Valley.	J/A '66 p25

ROUTES Kern Co., Continued	
Main St. Mojave, 1909.; Mojave 1912, and 1937, after new construction.	F '38 p18
Oildale; FAS 887 expressway on Manor St.	M/A '60 p43
Oilfield road in use near Rosedale.	N '38 p2
Poorly drained highway with stranded horse and buggy.	S/O '50 p93
Rt. 14 [US 6], section through Red Rock Canyon.	May '41 p6
Dip in Rt. 14 through Red Rock Canyon replaced by fill and culvert.	May '41 p6
Completed section of improved road north of Mojave.	S/O '58 p10
Improved section at junction with Rt. 46 [US 466].	S/O '58 p11
Expressway work in progress in Red Rock Canyon.	S/O '58 p12
Red Rock Canyon section prior to improvement in 1929.	J/F '60 p73
Same section after modernization, 1959.	J/F '60 p73
Old highway crossing of main wash of Red Rock Canyon.	M/A '60 p47
Realigned 4-lane section climbing out of main wash. M/A '60 p49;	N/D '60 p69
Rt. 33 [Leg. Rt. 138]; Taft-Maricopa Hwy., official group at dedication.	F '38 p21
View of highway looking southerly in direction of Maricopa.	F '38 p21
Rt. 41 [Cholame Lateral]; Cottonwood Pass, section of new, wide 2-lane highway.	S '41 p22+
Rt. 46 [US 466]	
Keene-Tehachapi Hwy.	
Fill above main line of SP tracks under construction near Cable.	N/D '47 p1
Toe wall for support of riprap at channel change under construction.	N/D '47 p11
Heavy excavation near Keene Sanitarium.	N/D '47 p12
Section of completed highway.	N/D '47 p12
Official group at Tehachapi ribbon cutting ceremony.	N/D '48 p39
Tehachapi-Keene highway crossing Tehachapi Overhead.	N/D '48 p40
Mojave-Boron Hwy. before improvement.	M/J '56 p70
Newly completed section of desert highway.	M/J '56 p70
Section between Mojave and Boron.	M/J '56 p71
Construction underway on big cut for realignment east of Bakersfield.	S/O '59 p8
Relocation operations underway east of Bakersfield.	S/O '59 p55
Improved section of Rt. 46 [US 466] in eastern Kern Co.	N/D '61 p11
Improved section near Arvin Turnoff.	M/A '61 p35
Reinforced concrete ditch-check series in operation; Subgrade trimmer.	M/A '61 p37
Metal pipe velocity dissipater installed for roadway surface drain.	M/A '61 p37
Improved section near Caliente Rd.	M/A '61 p38
Rt. 58 [Rt. 178]	NI (20, 2
Bakersfield-Mojave Hwy., a narrow, winding road with many curves.	N '38 p3
Tehachapi Pass section after realignment.	Jan '40 p6+
Construction in mountainous terrain west of Tehachapi.	N/D '64 p70
Rt. 65 [Orange Belt Hwy.]	Mass (40 = 0
Equipment and crews on section of Ducor Cut-off. Crew finishing slope on section of cut-off.	May '40 p8 May '40 p9
Graded roadway nearly completed; Shovel purchased by county for project.	May '40 p9
Looking north over portion of Ducor Cut-off.	Jan '42 p24
Section of Ducor Cut-off south of Poso Creek.	Jan '42 p24 Jan '42 p24
Rt. 99 [Rt. 4]	Jan 42 p24
Divided highway south of Bakersfield.	Jan '39 p8+
New lanes for southbound traffic just added to divided highway,	3an 37 po
with old highway now reserved for northbound traffic.	Jan '39 p10
Old divided Rt. 99 near Rt. 99/Rt. 46 [Rt. 466] separation.	J/A '57 p9
Section near Beardsley Canal, existing highway used as north-bound lane.	J/F '49 p21
Looking northerly from south end of overpass at main line tracks of SP.	J/F '49 p22
Improvements on US 99 south of Bakersfield.	N/D '49 p57

ROUTES Kern Co., Continued	
Crossover about two miles south of Bakersfield.	N/D '49 p58
Section at Oildale Overhead north of Bakersfield.	S/O '54 p1
Delano Bypass	
Normal traffic through Delano before bypass.	J/A '56 p29
Approaching N. Delano Overhead Crossing.	J/A '56 p30
Section at south end of project.	J/A '56 p30
Approaching Airport Rd. Overcrossing looking southerly.	J/A '56 p31
Approaching Cecil Ave. Overcrossing looking southerly.	J/A '56 p31
Completed Delano Bypass.	S/O '58 p39
Rt. 119 [US 399] relocated around Hill 36 near Ford City and Taft.	S/O '58 p43
Rt. 155 [Rt. 142]	
Divided road at northerly approach to new and old bridges over Kern River.	Jun '42 p16
4-lane highway north of Bakersfield looking across Beardsley Canal Br.	Jun '42 p14
Rt. 178 (Walker Pass Rd.) near Weldon looking east.	S/O '58 p11
Section looking north from the west end of the main dam at Lake Isabella.	S/O '58 p41
Kings Co.	
Rt. 41 relocation at junction with existing highway at Kettleman City.	J/A '59 p45
Completed Rt. 41 project through Kettleman Hills.	S/O '59 p7
Rt. 198; Channelized intersection at Lacy Blvd., with sodium vapor lamp	
amber flashers and red reflectors.	Aug '39 p22
Portion of realigned Rt. 198 through Henford.	Aug '39 p23
Utica Ave., future location of I-5 interchange.	M/A '66 p37
Lake Co.	
Rt. 20 [Rt. 15]	
Widened roadway and parking area along the north shores of Blue Lakes.	Aug '39 p8+
Tule Lake fill; Flooding of Tule Lake fill.	S/O '51 p47-
Laurel Dell Lake, showing cuts for Laurel Dell-Tule Lake project.	J/A '55 p16
Construction underway along shore of Laurel Dell Lake.	J/A '55 p17
New grade on Rt. 20 project.	J/A '55 p17
Construction operations at intersection with Scott's Valley Rd.	J/A '55 p17
East Branch Russian River realignment	
Realigned section descending from summit traveling easterly.	M/J '57 p4
Traveling west approaching summit and Mendocino-Lake Co. line.	M/J '57 p4
Rt. 53 looking toward Clearlake Highlands during construction.	J/A '58 p42
Relocated section of Rt. 53 between Cache Cr. and Rt. 20 junction.	N/D '59 p39
Lassen Co.	
Rt. 36	
Completed improvement project between Bird Flat and Doyle.	N/D '46 p11
Curve on old alignment near Susanville; Rt. 36 relocation near Susanville.	S/O '64 p45
Rt. 36/US 395 intersection before relocation.	S/O '64 p46
Completed expressway at new Rt. 36/US 395 junction.	S/O '64 p46
Rt. 44 [Rt. 20], Feather Lake Hwy. after improvement.	N/D '61 p44
Susanville-Adin Hwy., California 's longest FAS route, after improvement.	S/O '56 p24
US 395 [Rt. 73] looking toward Secret Valley maintenance station.	S/O '46 p13
Highway near Viewland.	S/O '46 p14
Oiled earth road to Ravendale continues where resurfacing ends.	S/O '46 p14
Improved Secret Valley section.	N/D '53 p40
Section of old road.	N/D '53 p41
Improved section south of Ravendale.	M/A '58 p11

ROUTES, Continued

ROUTES, Continued	
Los Angeles Co.	
Burbank Blvd., Burbank	
Looking northwesterly from the vicinity of Burbank Blvd.	J/F '50 p14
New alignment seen from junction with San Fernando Blvd.	J/F '50 p15
Burbank Blvd. intersection.	J/F '50 p15
Compton Blvd., widened section in Compton.	J/A '60 p50
Crenshaw Blvd., widened to six lanes, with median and frontage streets.	J/A '60 p49
Dead-end street Serrano Place south from Lemon Grove Ave., L.A.	M/A '45 p28
Dead-end street Los Arboles Lane, San Marino.	M/A '45 p29
Embankment materials/disposal sites	
Compacted embankment for San Diego Fwy. in Torrance acquired from	
excess excavation on Harbor Fwy.	M/J '60 p22
Disposal sites with compacted embankments near Glendale-Golden	
State Fwy. interchange.	M/J '60 p23
Proposed alignment of Santa Monica Fwy. between Vermont Ave. and	
Budlong St., site of stockpiled embankment material.	M/J '60 p24
Embankment material being placed by private contractor.	M/J '60 p24
Disposal sites on Golden State Fwy. near Riverside Dr.	M/J '60 p25
Figueroa St. [Rt. 165] looking north from C St. in Wilmington.	J/F '45 p3
Figueroa St./Vernon St. intersection traffic jam, Los Angeles.	J/A '45 p30
Foothill BlvdSee also I-210, Foothill Fwy.	-
Sunland; typical view of completed roadway.	F '38 p11
View easterly over new bridge across Big Tujunga Wash overflow	-
channel showing old sharply curving alignment.	F '38 p11
Fourth St. Cut	•
Intersection of 4th St. and Beaudry Ave. showing one-way ramp over	
Harbor Fwy. leading to Figuroa St.	M/J '56 p15
Grading operations near Hope St.; Same location, completed.	M/J '56 p16+
Grading operations across Grand Ave.; Same location, completed.	M/J '56 p15
Falsework for Hope St. Bridge on 4th St.; Same location, completed.	M/J '56 p15
Auto caravan lines up following dedication ceremonies for 4th St. project.	M/J '56 p19
Official party at ribbon-cutting ceremony.	M/J '56 p20
Garvey Ave. [Rt. 26; Los Angeles-Pomona Lateral]	•
Sketch of new L.APomona Lateral "superhighway".	Apr '37 p4
Views of realigned L.APomona Lateral.	Apr '37 p5
Completed section of pavement, widened from 3 to 4 lanes, west of Pomona.	Apr '37 p5
Line of trucks dumping material used in laying additional strip of pavement.	Apr '37 p5
Concrete mixer and mechanical finishers operating on Garvey Blvd. near	1 1
Kellogg Hills, one of links in new highway.	Apr '37 p5
Building Garvey Ave. "superhighway" in 1937.	S/O '64 p52
Huntington Dr. in S. Pasadena, widened to accommodate six traffic lanes,	1
two parking lanes, and an 18-ft median strip.	J/A '60 p48
I-5; Ridge Route/Grapevine Canyon section [US 99]See also Kern Co.	1
Section of Grapevine Grade/Ridge Route ca. 1914. J/F '52 p25;	J/A '58 p11
Constructing original Ridge Route with four-horse Fresno scrapers, 1915.	S/O '65 p21
Big Cut on first Ridge Route highway, 1915.	S/O '65 p20
Steep cuts through Ridge Route, ca. 1915.	J/F '61 p7
Section of Ridge Route, 1920s.	J/F '61 p7
$\boldsymbol{\varepsilon}$	r ·

OUI	ES Los Angeles Co., Continued		
	Castic section		
	Controlled traffic using route while heavy grading is in progr	ess.	M/A '48 p11
	Heavy excavation cut operations on Ridge Route		M/A '48 p12
	Heavy grading on five-mile grade near Castaic.		M/A '48 p21
	Completed sections north of Castaic.	J/A '48 p18;	J/A '49 p21
	Completed section at Rt. 126 [Rt. 79] intersection.	J/A '49 p18;	J/A '53 p6
	Grading operations on portion of Ridge Route near northern end.	_	J/A '49 p19
	Santa Clara River-Pico Canyon section, completed.		J/A '49 p21
	Completed construction near Pico Canyon.		J/A '49 p22
	Piru Gorge section south of Gorman.	N/D '45 p7;	S/O '50 p137
	Section through Piru Gorge on Ridge Route before widening	1 /	N/D '50 p30
	Blasting in Pyramid Cut in Piru Gorge.		N/D '50 p31
	Big job for bulldozers in Piru Gorge.		N/D '50 p43
	General view of Piru Gorge.		N/D '50 C
	Borrow pit for selected base material and mineral aggregate.		J/F '50 p31
	Section near Gorman Cr. looking northerly.		J/F '50 p32
	Section in Piru Gorge, showing Pyramid Cut.		J/F '52 p27+
	Completed section at Piru Creek Br.		J/F '52 p27
	View south from Pyramid Cut.		J/F '52 p28
	Piru Gorge section, showing proposed new route.		S/O '65 p28
	Weldon Canyon section J/F '52 p46+; J/A '53 p4+	· I/E '5/1 p20·	S/O '54 p3
	•		J/A '53 p6
	Weldon Summit, with excavation slope flattened to eliminate San Fernando reservoir skirted by Sepulveda Blvd.	silues.	J/F '54 P4
	Portion of half-million-yard fill under construction.		J/F '54 p40
			J/F 34 p40
	Fill-compacting operations underway on section of freeway	_	I/E 45.4 4.1
	approaching Owens Valley-Los Angeles aqueduct crossin	g.	J/F '54 p41
	Heavy construction near Tunnel Station looking southeast.		S/O '54 p1
	Section at interchange with Sepulveda Blvd.		J/F '56 p65
	Grapevine Grade showing present 1957 highway.		J/A '58 pl1
	Aerial view indicating location of proposed additional lanes.		J/A '58 p12
	Widened section through Grapevine Canyon near Ft. Tejon Overd		S/O '60 p7+
	I-5 in vicinity of Castaic Junction showing old route of former US	5 99.	M/A '65 p46
	Ridge Route section of I-5.		J/A '66 p24
	Tejon Summit area showing present route and proposed realignm	ent.	S/O '65 p22
	Liebre Gulch section showing proposed new route.		S/O '65 p28
	Ridge Route as seen from Paradise Ranch.		S/O '65 p29
	Horses grazing near Castaic on land earmarked for future develop	oment.	S/O '65 p30
1-5;	Golden State Fwy. [US 99]	T/D (55 5	T/E (50 0)
	Construction in Burbank at interchange with Alameda Ave.	J/F '57 p5;	J/F '59 p26
	Construction progress in Griffith Park area near Los Feliz Blvd.	J/F '57 p10;	J/F '58 p7
	View of construction from above Griffith Park.		J/F '57 p10
	L.A. near Hollenbeck Park Lake and 6th St. showing proposed ro	ute of	
	freeway and right-of-way clearing operations.		J/F '57 p11
	Completed section in Griffith Park area near Park Rd Overcrossin		S/O '57 p21
	Section under construction at Los Angeles Rvr. and Riverside Dr.		S/O '57 p24
	Construction in Burbank showing cloverleaf interchange with Ala		S/O '57 p24
	Construction nearing completion between Allan Ave. and Alamed		S/O '57 p25
	Construction nearing completion in Griffith Park near Los Angele	es Rvr.	S/O '57 p25
	Colorado Blvd. connection with Golden State Fwy.		J/F '58 p7
	Construction in Boyle Heights area of East L.A. near Hollenbeck	Park.	J/F '59 p42
	Grading operations in Lincoln Heights area.		S/O '59 P11
	Completed section in Burbank.		S/O '59 p11

JUTES LOS Angeles Co., Continued	
Construction near future interchange with San Bernadino Fwy.	S/O '59 p16
Completed section at junction with San Bernadino Fwy.	N/D '60 p41
Completed section showing Los Feliz Blvd. overcrossing and on/off-ramps.	S/O '59 p17
Construction on Roscoe BlvdLankershim Blvd. unit near Sun Valley.	N/D '60 p16
Los Angeles Fwy Loop section under construction at Roscoe Blvd.	J/F '61 p15
Fill stockpiles placed prior to construction.	J/F '61 p17
Construction underway near Burbank Blvd.	J/F '61 p19
Construction in progress looking north from Hollywood Way.	J/F '61 p21
Construction at Lankershim Blvd.	J/F '61 p21
Completed section in Burbank looking north from Western Ave.	J/F '61 p21
Construction progress near Elysian viaduct.	M/A '61 p7
Completed section in vicinity of Burbank, part of future "loop bypass."	N/D '61 p66
Completed section at junction with San Diego Fwy.	M/A '64 p20
Riders following bridal path alongside Golden State Fwy. near Griffith Park.	M/A '64 p20
I-5; Santa Ana Fwy. [I-105; US 101]—See also ROADSIDE BUSINESSES; TRAFFI	
Section near 6th St. Bridge, 1941; Same location, 1955. Fill in process of construction as seen from 6th St. Br.	J/A '55 p8
Reinforcing existing storm drain, as viewed from 6th St. Br.	M/A '46 p25 M/A '46 p25
Santa Ana Fwy. right-of-way cleared and ready for roadway construction.	M/J '48 p16
Section at 6th St. Viaduct.	J/A '48 p1
Section looking toward 4th St. Overpass grade separation.	J/A '48 p14
Santa Ana Fwy. at 7th St. grade separation.	J/A '48 p15
Construction west of Indiana St. grade separation.	S/O '48 p42
Construction on Soto StEastman Ave link of Santa Ana Fwy.	M/J '49 p44+
View westerly from Rt. 10 [Olympic Fwy.] grade separation.	M/J '49 p46
Section near Grande Vista St. showing Lorena St. grade separation.	M/J '49 p46
Aerial view of construction area near Atlantic Blvd. M/J '49 p49;	M/J '50 p32
La Verne-Eastland unit before opening to public traffic.	M/J '50 p33
Santa Ana Fwy., L.A.	S/O '50 p107
Santa Ana Fwy. from east Los Angeles city limits near Indiana St.	M/A '52 p6
Bishops Rd. excavation-materials disposal area.	S/O '52 p17+
Section approaching L.A. Civic Center, City Hall.	N/D '52 p16
Proposed location of "Norwalk Diagonal" intersection of Firestone Blvd.	_
and Rosecrans Ave.; Grading operations on Norwalk Diagonal.	N/D '52 p19
Rosecrans-Firestone intersection near Norwalk, 1952; Same location	
completed to full freeway standards in 1955.	M/A '56 p45
Construction near Rio Hondo Br.	M/A '53 p14
Completed section near Atlantic Blvd. and Union Pacific RR	M/A '53 p15
Section between Grand Ave. and Lincoln Ave.	J/F '54 p3
Completed section near "mixmaster" interchange.	J/F '54 p7
Section from Shoemaker Ave. Br. to Valley View Ave.	S/O '55 p9
East L.A. section between 4th St. and 6th St.	S/O '55 p11
Paving operations for Camulos StOlympic Blvd. section .	M/J '56 p58
Typical conditions before construction of Camulos StOlympic Blvd. section	M/J '56 p58
Completed widening operations.	M/J '56 p59
Mulholland borrow pit.	J/A '57 p69
CHC inspecting the Ventura-San Diego Fwy. extension under construction	T/A 457 70
in San Fernando Valley at Sherman Oaks.	J/A '57 p70
Construction progress in Haskell Ave. area.	J/A '57 p71
View southerly across interchange roadway near Ventura Blvd. Br.	J/A '57 p71
Section near Euclid Ave. Interchange.	J/F '58 p8

\mathbf{O}	1 E5 Los Angeles Co., Continued	
	Added westbound lane near Spring St.	S/O '59 p22
	Widened section near Long Beach Fwy. interchange.	M/A '61 p13
	I-5 "westward through miles of small cities and suburban areas."	J/A '66 p24
	Route through San Gabriel Mts.	J/A '66 p24
I -1	10; San Bernadino Fwy. [Ramona Fwy., Rt. 26]	
	Pomoroy St. on/off-ramps.	M/A '45 p24+
	Looking west from Eastern Ave. overcrossing.	M/J '50 p30
	View of future freeway site near City Terrace.	M/J '50 p31
	City Terrace area of freeway.	M/A '52P13
	Section at Eastman Ave. overcrossing.	
	Rosemead Blvd., with completed construction for underpass with PE Railway.	S/O '51 p14
	Construction near Warwick Ave.	J/F '52 p17
	View easterly from Almansor Ave. along eastbound roadway.	J/F '52 p18
	Floral Park on-ramp.	J/F '52 p19
	Pile driving operations on section of Ramona Fwy.	J/A '52 p57
	Construction at Atlantic Blvd.	M/A '53 p9
	Completed section between Eastman Ave. and Fremont Ave.	M/A '53 p10
	Pomona; proposed freeway route, L.A. Co. Fairgrounds, and Ganesha Park.	M/A '53 p20
	Proposed route of freeway through Pomona, and initial unit of	
	Liberty Homes development near Valley Blvd.	M/A '53 p22
	Ribbon cutting ceremony on Ramona Fwy. at Fremont Ave.	J/A '53 p15
	Caravan of official cars on Ramona Fwy. nearing Fremont Ave.	J/A '53 p15
	Outbound lanes of completed section of freeway.	J/A '53 p16
	Finishing operations in progress, Pomona-Claremont unit.	N/D '54 p7
	Section between Ganesha Ave. Br. and Rt. 71/I-10 [Rt. 77/26] separation.	N/D '54 p7
	Completed section between Dudley St. Br and Ganesha Ave. Br.	N/D '54 p7
	Section showing Ganesha Ave. Br. and westbound inlet ramp.	N/D '54 p11+
	Palms, orange groves border section in Claremont near Alexander Ave.	M/A '55 p24
	Ribbon-cutting ceremony at San Gabriel AveRosemead Blvd. dedication.	M/A '54 p47
	Gov. Knight operating bulldozer at Rosemead Blvd. ground-breaking.	S/O '54 p21
	Peak hour traffic on San Bernadino Fwy. approaching Soto St.	J/F '55 p20
	Section at Rt. 71 [Garvey Ave.] junction, and environs of Pomona.	J/F '55 p22+
	Section at Garfield Ave.	J/F '56 p63
	Construction in El Monte.	J/F '56 p63
	Gov. Knight cutting ribbon at dedication of El Monte unit.	J/A '56 p52
	Completed section through Alhambra and Monterey Park.	J/A '56 p37
	Construction operations approaching Pomona.	J/A '56 p37
	Approaching routes I-405/I-10 [158/26] separation on Rosemead Blvd.	J/A '56 p38
	View of freeway from Barranco St. Overcrossing.	J/A '56 p39
	Paving operations at eastern end.	J/A '56 p40
	Grading between Pomona and W. Covina.	J/A '56 p40
	At junction with Rosemead Blvd., showing interchange and frontage road.	J/A '56 p41
	Approaching River Grade Rd. Undercrossing.	J/A '56 p42
	Peak hour traffic in summer 1955, before installation of guard rail in median.	M/A '56 p46
	Completed freeway in Baldwin Park.	M/J '57 p25
	Completed section from Kellogg Hill summit cut near Pomona.	M/J '57 p26
	Aerial view of San Bernadino Fwy. through El Monte.	J/F '59 p17
	Widened section at El Monte near Baldwin Ave. interchange.	M/A '61 p13
	San Bernadino Fwy. near Covina.	N/D '61 p20
	San Bernadino Fwy. near shopping center.	S/O '64 p53

ROUT

OUTES Los Angeles Co., Continued	
I-110; Harbor FwySee also TRAFFIC	
Construction at third street overcrossing.	M/A '51 p12
View from Temple St. of cleared right-of-way for Harbor Fwy.	M/A '51 p13
Official group at ground breaking ceremonies.	J/A '51 p16
Harrison Baker (CHC) points to cornerstone of Francisco Street Br.,	1
the start of Harbor Fwy. in 1948.	J/A '51 p62
Section near Temple St., Four-level structure in background.	S/O '52 p23
Aerial view of construction between Beaudry Ave. and Figueroa St.	M/A '52 p16
Marine helicopters landing on freeway.	J/A '52 p59
Section near 8th St. undercrossing.	M/A '53 p5
Construction between 9th St. and 3rd. St., and Statler Hotel.	M/A '53 p11
Harbor Fwy. at Four-level traffic interchange.	J/F '54 p9
Construction from 3rd. St. southerly.	J/F '54 p12
7th St3rd St. section showing downtown Los Angeles.	J/F '54 p14
Proposed route near Flower and Figueroa St. showing cleared right-of-way.	M/J '54 p2
Evening peak hour traffic on Harbor Fwy. at 5th St.	M/J '54 p3
Proposed routing near L.A. Co. Sanitation Plant.	M/J '54 p4+
Aerial view of freeway from 9th. St. as it passes Statler Hotel.	M/J '54 p6
Proposed route showing diversion around productive oil wells.	M/J '54 p7+
Proposed route near Figueroa St. and Shell Oil Co. refinery.	M/J '54 p8
Looking east on Slauson Ave. near future route of Harbor Fwy.	M/J '54 p10
View from under on-ramp bridge for southbound traffic from 5th St.	M/J '54 p10
Looking southerly with Statler Hotel in background.	M/J '54 p10
Heavy northbound traffic passing under 4th St. overcrossing.	M/J '54 p10
Southerly view, showing off-ramp to 6th St.	M/J '54 p11
View southerly showing 4th St. Bridges in center.	M/J '54 p11
Proposed route near Figueroa St., showing adjacent housing developments.	M/J '54 p13
Proposed location halfway between Broadway and Figueroa St.	M/J '54 p14
Completed section at Pico Blvd. showing turnout for northbound traffic.	J/A '54 p46
Portion of retaining wall and stairway at Oak St.	J/A '54 p46
Official party man shovels at Harbor Fwy. Battery St. dedication.	S/O '54 p29
Approaching 4th St. bridges.	J/F '55 p26
Harbor Fwy. in vicinity of downtown L.A.	J/F '55 p27
Right-of-way cleared of buildings for future Harbor Fwy. construction.	J/F '55 p29
Wilmington-San Pedro section	0/1 00 p2)
Contractor's haul road through Union Oil refineries area.	J/A '55 p57
Loaders dumping into excavation area.	J/A '55 p58
Excavation area and haul road through oil refinery.	J/A '55 p59
Ribbon-cutting ceremony for Willmington-San Pedro unit.	J/A '56 p53
Harbor Fwy. from 4th St. in 1951 during construction of Statler Hotel.	J/F '56 p60[
Peak hour traffic at same location, 1956.	J/F '56 p60
Right-of-way area clear of all improvements near Santa Barbara Ave.	M/A '56 p39
Official party at ribbon cutting ceremony for Harbor Fwy. section.	S/O '56 p20
Construction on Harbor Fwy. near 79th St.	S/O '56 p21
Section of freeway near Flower St.	S/O '56 p22
Section near Santa Barbara Ave.	S/O '56 p22
Construction on Harbor Fwy near 49th St.	S/O '56 p23
Construction near Slauson Ave crossing, looking northerly.	J/F '57 p5
Section through downtown LA. showing 4th, 5th and 6th St. bridges.	J/F '57 p17
Gov. Knight and official party at ribbon-cutting for Santa Barbara Ave	2,2 2, P1,
88th Pl. unit.	M/J '57 p41
Auto caravan on Harbor Fwy. following ribbon-cutting.	M/J '57 p42
varanan on rianoor rang, rononing nooni varang.	1.2,0 07 P 12

ROUTES Los Angeles Co., Continued Completed section looking north from Manchester Ave. J/F '58 p1 Section from Wilshire Blvd. Br. to Four-level Interchange. J/F '58 p5 Construction progress looking north from above 124th St. J/F '58 p5 Section of Harbor Fwy. in downtown Los Angeles. N/D '58 p7 View southward from Manchester Ave. interchange. J/F '59 p23 S/O '59 p21 Slip ramp which handles traffic from distributor road to 5th St. inlet. Harbor Fwy. through downtown L.A. showing parking space areas which came available as obsolete buildings were torn down. J/F '60 p17 Completed section of Harbor Fwy. near 146th St. pedestrian overcrossing. M/A '61 p9 Harbor Fwy. M/J '66 p14 I-210; Foothill Fwy. Construction looking south toward Highland Ave. cut. J/A '54 p50 Aerial view of Foothill Blvd. looking westerly across Devil's Gate Dam. S/O '55 p41 I-405; San Diego Fwy.--See also LANDSCAPE & LANDSCAPE MAINTENANCE Proposed route of San Diego Fwy. in Sherman Oaks area. J/F '57 p14 View looking northerly across interchange roadway from Camarillo Ave. J/A '57 p68 Gov. Knight using Swedish bucksaw to cut barricade at opening of West L.A. section of San Diego Fwy. M/A '57 p33 West L.A. section from Sunset Blvd. overcrossing looking south. M/A '57 p34 San Diego Fwy. between Wilshire Blvd. and Sunset Blvd. J/F '58 p11 M/J '60 p9 Completed section near Sepulveda Blvd. Flood Control Dam. M/A '61 p15 Completed section near Dana Point. Construction underway near Sepulveda Blvd. and Mulholland Dr. M/A '61 p19 Construction in progress at junction with relocated Lakewood Blvd. M/A '61 p14 Grading on Santa Monica Mts. route near Sepulveda Blvd. Bridge. N/D '61 p68 Section between Long Beach Fwy. and Atlantic Ave. in Long Beach. M/A '64 p26 M/A '64 p31 San Diego Fwy. under construction near Whittier Narrows Dam. Dedication ceremony for Los Angeles-Orange Co. unit of San Diego Fwy. M/J '65 p33 San Diego Fwy. at Willow St. undercrossing. M/J '65 p34 San Diego Fwy. over Sepulveda Pass. M/J '66 p14 J/F '67 p43 San Diego Fwy. at south edge of San Fernando Valley near Ventura Fwy. M/J '66 p14 San Diego Fwy. under construction at interchange with San Diego Fwy. Section of I-405 through "big cut" over Santa Monica mountains. J/A '66 p24 I-605; San Gabriel River Fwv. Section near Rose Hills Rd. J/A '64 p34 Tract houses in Norwalk showing cleared land for I-605 right-of-way. J/A '64 p36 California Country Club straddles the freeway north of Whittier. J/A '64 p37 Aerial view of I-605 course northward through a corner of Downey. J/A '64 p38 San Gabriel River Fwy. looking south from Rose Hills Rd. interchange. J/A '64 p39 Ward Duck ranch along freeway. J/A '64 p39 J/A '64 p40 Installing aluminum glare shield on I-605. California Country Club and Ward Duck Ranch in relation to I-605. J/A '64 p41 N/D '64 p48 Completed section north of Whittier. San Gabriel River Fwy. serving City of Industry. M/J '65 p35 San Gabriel River Fwy. at Willow St.-Katella Ave Interchange, Long Beach. J/F '67 p9 Parade of cars on San Gabriel River Fwy. following dedication. J/F '67 p10

TES Los Angeles Co., Continued	
I-710; Long Beach Fwy.	
Buildings of the US Army 822 Air Force Specialized Depot on freeway site.	M/J '51 p14
Plant of the American Brake Shoe Co. on freeway location near Slauson Ave.	M/J '51 p14
Drain construction by city of Long Beach to clear way for freeway.	M/J '51 p15
Willow St. overcrossing built by city of Long Beach to accommodate freeway.	M/J '51 p15
Richfield oil refinery which will be interfered with by freeway construction.	M/J '51 p15
Official party at ground breaking ceremonies.	J/A '51 p16
Portland cement concrete batch plant for use in construction operations.	N/D '52 p9
Paving operations near Willow St.	N/D '52 p10
At intersection with Rt. 1, Pacific Coast Hwy.	N/D '52 p14
Preliminary studies for southerly extension of Long Beach Fwy.	N/D '52 p10
Construction in progress near Anaheim St. crossing. N/D '52 p14;	M/A '53 p15
Official party at ribbon cutting ceremony for first section of Long Beach Fwy.	J/F '53 p37
Grading activity at Artesia Street Br.	J/A '53 p12
Rt. 1 (Pacific Coast Hwy.)-223rd. St. section.	J/A '53 p21
Construction operations between Atlantic Ave. and Artesia Street Br.	J/A '53 p22
Construction activity near Long Beach Blvd. J/A '53 p22;	J/A '54 p29
Section along Los Angeles River from Anaheim St. to 223rd St.	J/F '54 p16
Gov. Knight cuts ribbon at 223rd StAtlantic Ave. dedication ceremony.	N/D '54 p34
Completed section viewed from Pacific Coast Hwy.	J/A '54 p23
Aerial view of freeway near Del Amo Br.	J/A '54 p25
Construction operations looking northerly toward Atlantic Ave.	J/A '54 p29
Construction at interchange with Florence Ave. in East L.A.	J/F '57 p5
Completed section near Florence Ave. interchange.	J/F '58 p11
Section at interchange with Santa Ana Fwy. J/F '56 p60; N/D '57 p5+;	J/F '58 p11
Construction in progress at crossing with Los Angeles Rvr.	N/D '57 p7
Section at interchange with Atlantic Ave. and Bandini Blvd.	N/D '57 p9
Section under construction near Atlantic Ave.	N/D '57 p9
Section near Artesia Ave. cloverleaf.	J/F '58 p11
Looking south over Long Beach Fwy. toward the Harbor area.	S/O '58 p49
View northward from Olive St. Interchange.	S/O '58 p57
Construction on Long Beach Fwy. extension.	J/F '60 p7
Long Beach Fwy. terminus. near Anaheim St.	M/A '61 p3
Extension to interchange with I-10 near California State College, L.A.	M/A '65 p44
Kenmere access road near Lincoln in Burbank, after improvement.	J/F '45 p2
Kenmere, looking northerly on Buena Vista in Burbank.	J/F '45 p3
Buena Vista, south of Kenmere in Burbank.	J/F '45 p3
Long Beach traffic circle	0/1 13 p3
Reconstruction at State St., Lakewood Blvd., and Hathway Ave. intersection.	Jun '42 p9
Channelization at State St.; Hathaway Ave. approach.	Jun '42 p9
Los Angeles freeway system, general	• 411 · - p>
Aerial view of Los Angeles freeway system.	J/F '67 p23
Arroyo Seco-Harbor Fwy at Sunset Blvd., junction with Hollywood Fwy.	J/F '55 p17
Freeway system in vicinity of Los Angeles Civic Center.	J/F '58 p26
Hollywood Fwy., Harbor Fwy., and Arroyo Seco Fwy. extending from	0/1 00 p20
Four-level traffic interchange.	J/F '54 p15
Hollywood-Santa Ana Fwy. in downtown Los Angeles.	J/A '54 p1
Hollywood-Santa Ana Fwy. at Alameda St. showing L.A. Civic Center,	3/11 34 p1
L.A. Union RR Station, Federal Building, and Four-level Structure.	M/A '53 p8
San Fernando Valley freeways	25 ро
Governor's party on contractor's haul road during inspection tour of.	M/A '58 p35
Gov. Knight looking over construction plans with other members of party.	M/A '58 p36
22 Implied to thing over construction plants with other members of party.	50 p50

OUTES Los Angeles Co., Continued	
Manchester Ave. near Truxton Ave. in SW Los Angeles.	J/F '48 p13
Manchester-Firestone Blvd. [Rt. 42; Leg. Rt. 174], Downey	
Stretch of highway between Norwalk and Downey increased to 3-lane road.	May '37 p19
Gov. Merriam at ribbon-cutting; section of new highway.	Jul '37 p14
Ocean Blvd. in vicinity of Atlantic Ave. intersection, downtown Long Beach.	S/O '66 p22
Olympic Boulevard [Rt. 26]See also I-10, Santa Monica Fwy.	F '37 p7
Aerial view showing the route of Olympic Blvd. east-west arterial.	F '37 p7
Proposed line through Westwood Hills golf course and property of	
Fox Film Co.	F '37 p7
Louisiana Ave. link.	F '37 p7
Mile of recently dedicated, opened and partially completed roadway.	F '37 p7
Pennsylvania Ave. link through Santa Monica.	F '37 p7
Section showing high class character of real estate development.	F '37 p8
Olympic Blvd. pavement stopped at Fox Film Co. property pending	
acquisition of right-of-way donated to the state by the company.	F '37 p8
Bridge across Olympic Blvd., connecting buildings of Fox Studio.	Jan '41 p13
Unidentified stretch of improved Olympic Blvd.	Jan '41 p13
Olympic Blvd. extension divided highway construction near Lincoln Blvd.	
Left-hand turn-lanes looking westerly across 14th St.	J/F '49 p59
Contrasting colored lanes, looking westerly across Centinela Ave.	J/F '49 p59
Outer highway adjacent to Long Beach Blvd. at 44th St. in N. Long Beach.	J/F '48 p15
Redondo Beach Blvd.]Rt 175] divided highway development.	S/O '54 p51
Divided highway development on 174th St.	S/O '54 p51
Redondo Beach Blvd. at intersection with Crenshaw Blvd.	S/O '54 p52
Riverside Drive, a typical undivided highway.	J/A '45 p3
Rt. 1, Pacific Coast Hwy. [Rt. 60; US 101-Alt.; Coast Route; Roosevelt Hwy.]	T (27 0
Willmington unit; official guests at ribbon cutting ceremony.	Jun '37 p9
Section of new highway looking toward Long Beach.	Jun '37 p9
Speaker's platform at dedication ceremony.	Jun '37 p9
Walnut Canyon-Encinal Canyon unit	N. (20. 7
Reconstruction at Encinal Canyon; Grading operations on new highway.	Mar '38 p7
Grading, looking westerly from Walnut Canyon toward Zuma Creek.	Mar '38 p7
Division strip made of concrete curbs 4-ft. apart with planting between.	Aug '38 p22
Division strip on this portion of highway will be 4-ft. wide with raised	A (20 22
white arrows bordered by raised white lines.	Aug '38 p23
Heavy traffic on Coast Route north of Santa Monica.	D '38 p2
Escondido Creek improvement under construction.	Apr '40 p8
New type 6-cylinder diesel tractor pulling scraper.	Apr '40 p9
Construction activities at summit cut between Latigo and Escondido Canyon.	Apr '40 p9 Apr '40 p10
Line change at Latigo Canyon Rd. Solstice Creek-Walnut Canyon unit	Apr 40 pro
Power shovel removing deposit of sand on a beach 90-ft. above road.	Jan '41 p10
Section of four lane divided highway being completed on highway	Jan 41 pro
between Santa Monica and Oxnard.	Jan '41 p11
Construction scene near end of project.	M/A '47p19
1 3	M/A '47p19 M/A '47p20
Construction looking south to junction with existing route. Long Beach; three-tower transmission structure showing counterweight fill.	M/A '47p20 M/A '47 p9
Detail of base plate for final tower adjustment.	M/A '47 p9
Malibu Creek-Las Flores unit	wi/ A 7 / pz
View of widening operations from Carbon Point.	M/A '49 p32
Oil treatment of portion of sandy slope where widening was carried	141/11 T/ P32
out along high cut bank easterly of Malibu Creek.	M/A '49 p33
out along high out outle outletily of multid Clock.	11111 17 PJJ

ROUTES Los Angeles Co., Continued Malibu Creek and Latigo Canyon section, realigned. J/A '48 p31 Zuma Canyon section at intersection of Bonsall Dr and Westward Beach Rd. M/J '55 p33 Completed section near bridge across Arroyo Sequit Creek. M/J '55 p34 Section through Trancas Beach and Dunes Point. M/J '55 p35 Relocated section around Pacific Palisades slide area. J/F '60 p13 Rt. 1, Pacific Coast Hwy. near Santa Monica 1930; Same section, 1966. J/F '67 p19 Rt. 2, Angeles Crest Hwy.--See also CONVICT LABOR; EROSION CONTROL; SNOW; TUNNELS & TUBES Section showing erosion control treatment applied to fill slopes. S '37 p9 S '37 p9 Grading operation on highway near Chilao, 10 miles northeast of Red Box. Method of flattening fill slopes prior to applying erosion control treatment. S '37 p9 Cut under construction through decomposed granite cliffs. S '37 p19 Mar '41 p28 Mountainous terrain to be penetrated by tunnels. Mar '41 p29 Views of heavy construction necessary on route. General construction scene on Angeles Crest Hwy. D '42 p18+; S/O '48 p6 M/J '50 p42 Angeles Crest Hwy. Islip Summit on Angeles Crest Hwy. M/J '50 p43 Partially completed construction on Angeles Crest Hwy. N/D '56 p2 Section near Dawson's Saddle, showing attractive masonry retaining wall. N/D '56 p2 N/D '56 p5 Section at entrance to Upper Chilao recreational area in Angeles Nat. Forest. Long embankment slopes at junction of Crystal Lake and Rt. 2. N/D '56 p5 Buckhorn Campground and Antelope Valley viewed from Rt. 2. N/D '56 p6 Section near Cortelyou Springs. N/D '56 p6 Mt. Waterman Ski Lift on Angeles Crest Hwy. N/D '56 p7 Approaching Big Pines recreational area, showing side of road parking area. N/D '56 p12 Completed section at Blue Ridge Summit. N/D '56 p12 Section at junction of old road at Big Pines recreational area. N/D '56 p13 Cloudburst Summit section entering the Mt. Waterman winter sports area. N/D '56 p15 N/D '56 p15 View from Cloudburst Summit sowing highway winding through forest. View from location 10 miles northeasterly of La Canada near Red Box. N/D '56 p15 Completed section 6 miles northeast from La Canada. N/D '56 p15 At south boundary of Angeles National Forest. N/D '56 p15 N/D '56 p16 Frank Durkee and official party at ribbon-cutting. Rt. 2; Glendale Fwy. [US 66; Allesandro Fwy.] Traffic backed up on Fletcher Dr. at grade crossing of SP RR, which the proposed Glendale [Allesandro] Fwy. would eliminate. M/A '52 p15 Future site of Glendale Fwy. near Allessandro Rd. M/J '60 p25 M/A '61 p8 Completed section near future interchange with I-5 (Golden State Fwy.). Rt. 10; Santa Monica Fwy. [Olympic Fwy.] Cleared route of Santa Monica Fwy. looking east from Vermont Ave. J/F '61 p16 Construction near Santa Fe Ave. M/A '61 p16 Construction near "East Loop." M/A '61 p17 Gov. Edmund Brown observing Santa Monica Fwy. construction. N/D '61 p11 La Cienega Blvd unit before barricades were removed. N/D '64 p50 Santa Monica Fwy between Bundy Dr. (West L.A.) and Rt. 1 (PCH). N/D '65 p12 Santa Monica Fwy under construction in West L.A. N/D '65 p20 M/J '65 p34 Santa Monica Fwy. at La Brea Ave. cloverleaf interchange. La Cienega Blvd.-San Diego Fwy unit. M/J '65 p45 Final unit under construction in Santa Monica. M/J '65 p47 Santa Monica Fwy, opened to junction with Rt. 1. J/F '67 p10

JUTES Los Angeles Co., Continued	
Rt. 14; Antelope Valley Fwy.	
Drilling operations on section of Crystal Lake Rd.	M/A '59 p39+
Rugged terrain through which Crystal Lake Rd. was constructed.	M/A '59 p41
Aerial view showing alignment of road.	M/A '59 p41
Reconstructed section of route in Antelope Valley.	M/J '59 p43
Antelope Valley, showing proposed freeway route.	M/J '60 p18
Typical terrain in Antelope Valley with centerline of freeway superimposed.	M/J '60 p21
Construction near Soledad Canyon Rd. adjacent to Santa Clara Rvr.	M/A '61 p6
Drawing of planned Antelope Valley Fwy. contrasted with old Sierra Hwy.	•
and Angeles Forest Hwy.	J/F '64 p3
Drawing of future Antelope Fwy. at Division St.	J/F '64 p4
Traffic using Sierra Hwy. near Mint Canyon before opening of new freeway.	J/F '64 p5
Antelope Valley Fwy. east of Agua Dulce Canyon Rd.	J/F '64 p5
West end of freeway near Solamint.	J/F '64 p7
Scenic section of Antelope Valley Fwy.	M/A '65 p30
Eastern terminus at Ward Rd. overcrossing.	M/A '65 p42
Seismic blast set off along relocation line through Escondido Canyon.	M/J '63 p54
Mint Canyon Cut-offSee also TUNNELS, Newhall Tunnel	1
Looking south on Mint Canyon short cut route showing location	
of proposed new highway and old alignment.	Jan '38 p11
Rough grading operations on Mint Canyon Cut-off.	Mar '40 p8
Pioneering cut and fill down natural slope in Mint Canyon Cut-Off.	Mar '40 p9
Construction on Mint Canyon Cut-off east of old Newhall Tunnel site.	N '38 p7
Widening operations to eliminate sharp curve on road to old tunnel site.	N '38 p7
Santa Susanna Mt. ridge being cut through to transform	
Newhall Tunnel into an open cut highway.	Jan '40 p16
4-lane section of Newhall Tunnel approach with raised central	
dividing strip covered with plant-mixed surfacing.	Jan '40 p17
Rt. 14 [US 6] after tunnel was eliminated.	S/O '50 p96
Section where tunnel was once situated, 1963.	M/A '64 i.cvr.
Aerial view of San Fernando Pass area.	M/A '64 i.cvr.
I-5/Rt. 14 [US 99/US 6] junction near tunnel area.	M/A '64 i.cvr.
Rt. 19; Lakewood-Rosemead Blvds. [Leg. Rt. 168]	
Pasadena; cement treated base on Rosemead Blvd.	S/O '46 p26
El Dorado St. just east of Pasadena city limits.	S/O '46 p26
Mixing cement treated subbase on Rosemead Blvd.	S/O '46 p27
View of completed project, looking north on Huntington Dr.	S/O '46 p28
Openings in central parking strips located for safety, not convenience.	S/O '46 p28
Completed boulevard near center of project.	S/O '46 p28
Looking northerly across Beverly Blvd. intersection.	J/F '50 p17
View from vicinity of Anaheim-Telegraph Rd.	J/F '50 p17
Looking across Olympic Blvd. toward Beverly Blvd.	J/F '50 p17
View looking northerly toward Garvey Ave.	J/F '50 p53
Rosemead Blvd in Los Angeles.	J/A '52 p52
Relocated Lakewood Blvd. at Long Beach Municipal Airport.	M/A '61 p14
Rt. 27; Topanga Canyon Blvd. during reconstruction.	J/A '56 p23
Section of reconstructed Topanga Canyon Blvd.	J/A '56 p25
Rt. 60; Pomona Fwy. under construction near East L.A. Interchange.	M/A '65 p49

OUTES Los Angeles Co., Continued	
Rt. 91 [Rt. 175]	
Artesia Blvd. [St.] ribbon cutting ceremonies.	J/A '53 p11
Construction between Alameda St. and Long Beach Blvd.	J/A '53 p12
Improvement near Atlantic Blvd. intersection.	J/A '53 p13
Improvement at Lakewood Blvd. Rt. 19 [Rt. 168] intersection.	J/A '53 p13
Construction near Alameda St.	J/A '53 p13
Rt. 110; Arroyo Seco PkwyPasadena FwySee also LANDSCAPE & LANDSCAP	-
Looking north from Hermon Ave., 1933; Same section, ca. 1960-61.	J/F '61 p61
Official group at Arroyo Seco Parkway ground breaking.	Apr '38 p21
Miss Cheryl Walker, 1938 Tournament of Roses queen, moves first earth	
with huge tractor.	Apr '38 p21
Sunken section of Arroyo Seco Pkwy., a 6-lane freeway with parallel	1 1
service roads and grade intersections, under construction.	O '39 p13
Arroyo Seco Pkwy. under construction, pre-1940.	J/F '61 p62
Same section ca. 1955.	J/F '61 p63
Completed section beginning at Glenarm St., Pasadena.	Jun '39 p10
Constructing and compacting fill for Arroyo Seco Pkwy.	Jun '39 p12
Arroyo Seco Parkway between L.A. and Pasadena.	F '40 p23
State, county and city officials inspecting completed section of parkway.	Aug '40 p14
Opened sections between Pasadena and L.A.	Aug '40 p15
Director Clark with Res. Engineer Hatfield.	Aug '40 p16
Arroyo Seco Pkwy. at Avenue 52.	Aug '40 p17
View through 3 Figueroa St. tunnels under Elysian Park.	O '40 p9
Arroyo Seco Pkwy. looking north from Ave. 60 in 1940; Same section, 1955.	J/F '61 p59
First section of Arroyo Seco Pkwy., 1940.	J/A '60 p56
Official party at ribbon cutting ceremony at Arroyo Seco Pkwy. dedication.	Jan '41 p4
Crowd in attendance at dedication.	Jan '41 p5
Autos moving to and from dedication scene.	Jan '41 p5
Gov. Olson's car leads long procession to site of official opening ceremony.	Jan '41 p5
Arroyo Seco Pkwy. looking toward Los Angeles.	Jan '41 p7
Arroyo Seco in flood period before construction of paved control channel.	Jan '41 p8
Frank W. Clark smoking peace pipe with Kawie Indian Chiefs.	Jan '41 p8
Natural sycamores preserved with masonry retaining wall.	Jan '41 p20
Open cut under construction through Elysian Park for southbound extension.	Apr '41 p9
Open cut construction paralleling Figuroa St. tunnels for northbound traffic.	Apr '41 p9
Equipment and some of the men engaged in building Elysian Park extension.	S '41 p6
Old Figuroa St. Tunnel and construction at Solano St. grade separation.	S '41 p7
Traffic hazard due drivers entering Arroyo Seco Pkwy. by way of an exit	T 1 (40 T)
ramp reduced by placing of signs. and long, raised islands.	Jul '42 p7+
Southbound traffic approaching L. A. on Arroyo Seco extension through	T/E (4.4 - 2
open cut in Elysian Park.	J/F '44 p3
Southbound traffic passing under Park Row Br., northbound through	I/E 444 2
Elysian Park tunnel.	J/F '44 p3
Two-way traffic separated by different levels. Arroyo Seco Pkwy., general view.	J/F '44 p4 J/A '45 p2
One of many attractive sections of parkway between L.A. and Pasadena.	N/D '47 p14
Fair Oaks off-ramp, which is to be replaced due to great number of	N/D 4/ p14
wrong-way accidents originating there.	M/J '48 p8
Examples of ascending outlet on Arroyo Seco Pkwy.	M/A '51 p52
Left-side Figueroa off-ramp on Arroyo Seco Pkwy.	M/A '51 p53
Emergency parking bay on Arroyo Seco Pkwy.	M/A '51 P53
View from Elysian Park showing tunnels for outbound traffic.	M/A '52 p5
1.10.11 10.11 11.15.00.11 1 and one of tallions for outcoming traffic.	52 р5

ROUTES Los Angeles Co., Continued	
Arroyo Seco Pkwy. in S. Pasadena. N/D '47 p13;	M/A '52 p5
Arroyo Seco Pkwy. near S. Pasadena, 1940; Same location, 1955.	J/A '55 p7
Arroyo Seco Pkwy. in South Pasadena, 1940.	S/O '64 p55
Arroyo Seco Pkwy. as seen from above San Fernando Rd.	M/A '53 p4
At junction with Hollywood Fwy showing city of Pasadena.	J/F '55 p17
Rt. 134; Colorado Blvd. [Colorado Fwy.; Colorado St.]	
Colorado Blvd. divided highway.	Aug '41 p17
Tournament of Roses Parade down Colorado St. on New Year's Day, 1955.	J/A '56 p34
Completed Colorado Fwy. near Eagle Rock.	J/F '56 p59
Rt. 170; Hollywood Fwy. extensionSee also US 101, Hollywood Fwy.	
Right-of-way clearance for extension along Big Tujunga Wash adjacent	
to new shopping development.	J/F '57 p6
Hollywood Fwy. extension under construction near Moorpark St.	J/F '58 p13
Extension under construction near Lankershim Blvd.	J/F '58 p14
Extension looking northward from Lankershim Blvd.	J/F '60 p3
Rt. 170, Hollywood Fwy. extension.	J/F '67 p9
Extension under construction near Ventura Fwy. interchange.	M/A '65 p44
San Fernando Rd. (Bus-I-5) [US 99]	
Shaping roadbed through the industrial area of San Fernando.	M/J '50 p29
Construction operations near northerly end of contract.	M/J '50 p29
Congested traffic on San Fernando Rd. [US 99] at Maclay Ave.	M/J '50 p28
Santa Anita Ave. in Arcadia at intersection with Camino Real Ave.	M/A '64 p56
Sepulveda Blvd.	Aug '41 p14
Terminal Island FwySee also EROSION CONTROL	N/D (47, 0)
Terminal Island Fwy. undercrossing looking east along State St. (PC Hwy.).	N/D '47 p26
Looking toward L.A., Terminal Island undercrossing.	N/D '47 p28
Section near Cloverdale connections.	S/O '48 p11
Terminal Island Fwy looking south toward Cerritos Channel Br.	S/O '48 p12
Looking northeasterly toward Anaheim St. Viaduct over UP, SP and	C/O 440 m12
PE Railroad tracks, and Anaheim and I Streets.	S/O '48 p13
Looking toward Anaheim St. Viaduct.	S/O '48 p30 Jan '40 p11
Topanga Canyon road near Santa Monica, slip-out during heavy storm. US 101; Hollywood Fwy. [Cahuenga Fwy.]See also LANDSCAPE; TRAFFIC	Jan 40 pm
Section of Hollywood [Cahuenga] Fwy.	J/F '46 p34
Section of Honywood [Candenga] Fwy. Section near underpass beneath PE tracks at Highland-Cahuenga intersection.	Jul '40 p34
Celebrities Gene Autry, Tom Keene, and Richard Arlen with official group	Jui 40 p2
at dedication of first unit.	Jul '40 p3
Section of Cahuenga Pass looking north toward Barnam overpass.	Mar '41 p24
General view of section looking south, near Mulholland Dr. overhead.	Mar '41 p25
Railroad tracks being moved during construction.	Mar '41 p25
Completed six-lane freeway through Cahuenga Pass.	M/J '44 p6
Completed section near Barnam Blvd. grade separation overcrossing.	M/A '49 p21
Freeway near Barnam Blvd., and fence constructed to protect pedestrians.	M/A '49 p23
Completed section near Barnam Blvd. showing rail rapid transit provisions.	M/A '49 p23
Ft. Moore Hill portion to be removed for Hollywood Fwy.	M/J '49 p19
Ft. Moore Hill, showing historic L.A. High School, which would	· · · · · · · · · · · · · · · · · · ·
have to be moved.	M/J '49 p17
North end of Ft. Moore Hill.	M/J '49 p18
Ft. Moore Hill-Broadway Tunnel section before excavation, showing	
old L.A. High School and L.A. City Board of Education buildings.	S/O '52 p20
Same location after excavation and removal of tunnel.	S/O '52 p21
Ft. Moore Hill before freeway construction, 1948; Same location, 1955.	J/A '55 p9

Hallyward Every design autlined an agrical photo shaveing route from	
Hollywood Fwy design outlined on aerial photo showing route from	M/I (40 m21
connection with Santa Ana Fwy. at Spring St.	M/J '49 p21
Pouring first ocncrete near abutment of Glendale Blvd. grade separation.	J/A '50 p18
Construction on Hollywood Fwy. near Bonnie Brae overcrossing.	J/A '50 p19
Section near Benton Way overcrossing.	J/A '50 p19
Portland cement concrete paving operations at Edgeware Rd. overcrossing.	J/A '50 p20+
Hollywood Fwy. [Cahuenga Fwy.], L.A.	S/O '50 p107
Grand AveSilver Lake Blvd. unit	I/E '51 - 10
Harrison R. Baker (CHC) speaking at dedication	J/F '51 p12
Official cars leading traffic over newly completed Hollywood Fwy.	I/E '51 - 12
following dedicatory address.	J/F '51 p13
Engineers of the Dept. of Hwys and members of the CHC at luncheon	I/E '51 -15
following dedication.	J/F '51 p15
Hollywood Fwy. looking westerly over Alvarado St. interchange structure.	J/F '51 p14
Men who conceived and constructed Hollywood Fwy., group photo.	J/F '51 p15
Construction near Western Ave. overcrossing.	M/J '51 p18
One road-way poured and second in preparation at Vermont Ave. crossing.	M/J '51 p18
Aerial view of construction between Grand Ave. and Alameda St.	M/J '51 p19
Paving machines in operation near Western Ave.	M/J '51 p20
Construction in downtown L.A. near Civic Center.	M/J '51 p21
Aerial view of Hollywood Fwy. between Western Ave. and Virgil Ave.	M/J '51 p22
Engineer Paul Harding speaking at Silver Lake-Western unit dedication.	S/O '51 p17
Official Party at ribbon-cutting ceremony.	S/O '51 p17
Mayor Fletcher Bowron of Los Angeles.	S/O '51 p18
Dedication parade on Silver Lake AveWestern Ave. link.	S/O '51 p18
Engineer Paul Harding at dedication of Spring StVentura Fwy. unit.	J/F '52 p13
City Engineer Lloyd Aldrich at dedication.	J/F '52 p13
Official party at ribbon cutting ceremony.	J/F '52 p14
Official caravan of autos using newly opened freeway section.	J/F '52 p14
Downtown L.A. showing freeway construction through civic center.	J/F '52 p15
Aerial view showing split between roadways to accommodate future	I/E '50 -16
connections with proposed Santa Monica Fwy.	J/F '52 p16
View from above Figueroa St. looking toward Civic Center, City Hall.	M/A '52 p4
Foundation of building moved to clear right-of-way.	M/A '52 p4
Portion of Hollywood Fwy. through Cahuenga Pass.	M/A '52 p9
Freeway section through LA. Civic Center showing completed Hill St.	M/A '52 m0
Overcrossing, L.A. Board of Education buildings, Federal Building.	M/A '52 p9 M/A '53 p12
Completed section from Alvarado St. into Civic Center.	
Completed section of freeway as far as Hollywood Blvd.	M/A '53 p14
Completed section near Cahuenga Blvd. Undercrossing.	S/O '53 p28
Last remaining section to be completed. Traffic below Four-level grade separation structure.	S/O '53 p28
	S/O '53 p34
Completed section from Cahuenga Blvd. to Gower St.	J/F '54 p10
Section through Hollywood business district into San Fernando Valley.	J/F '54 p15
Official ribbon-cutting group for opening at last link of Hollywood Fwy.	M/J '54 p20 S/O '54 p8
Section between Wilton Ave. Br. and Hollywood Blvd. Overcrossing. Aerial view of Hollywood Fwy. through downtown Los Angeles.	
, , ,	S/O '54 p10
View of freeway looking toward Wilton Ave. Br. At Hollywood Blvd. on-ramp bridge for in-bound traffic.	S/O '54 p12 S/O '54 p12
View from beneath Hollywood Blvd. off-ramp bridge.	S/O '54 p12
	S/O '54 p12
Franklin Ave. near Franklin AveArgyle Ave Undercrossing. View from Sunset Blvd overcrossing near Van Ness Ave. Overcrossing.	S/O '54 p14 S/O '54 p15
view from Sunset Divu overcrossing hear van Ness Ave. Overcrossing.	5/O 34 p13

DOUTES Los Angeles Co. Continued	
ROUTES Los Angeles Co., Continued	0/0 54 - 15
Section showing Hollywood Blvd. off and on-ramps.	S/O '54 p15
View near Highland Ave. off-ramp showing cleared area acquired from Pacific Electric Railway.	S/O '54 p16
Three-level interchange consisting of Ivar St. underpass, Cahuenga Blvd.	
on-ramp, and Franklin Ave. off-ramp.	S/O '54 p17
Whiteley Heights section.	S/O '54 p19
Section near Rosemont Ave. during right-of-way clearance.	J/A '55 p8
Same location, 1955.	J/A '55 p8
Section noted for its heavy volume of traffic and excellent safety record.	M/A '56 p47
Section at Highway Ave. on-ramp.	J/A '56 p9
Section of approaching Los Angeles Civic Center.	J/F '59 p46
Section of Hollywood Fwy. M/J '51 p33;	N/D '61 p20
Extension ofSee Rt. 170	
US 101; Ventura Fwy.	
Ventura Blvd. (US 101) in vicinity of Valley Blvd.	J/F '48 p12
Completed section looking south from Media Cr. toward Agoura.	J/A '50 p59
Completed section past Calabasas.	J/A '50 p59
Heavy grading operations in progress near Calabasas.	J/A '50 p60
Completed section through Agoura.	J/F '54 p6
Woodland Hills section under construction. J/F '57 p15;	J/F '58 p12
Completed section through Woodland Hills in San Fernando Valley.	J/F '60 p15
Construction at Calabasas near Mulholland Drive Br.	J/F '58 p12
Completed section in San Fernando Valley.	T/T/460 -
Median barrier on freeway near Louise Ave. and home of Edward E. Horton.	J/F '60 p5
Gov. Edmund G. Brown at Ventura Fwy. dedication.	M/J '60 p2
Completed section between Encino Ave. and Kelvin Ave.	M/J '60 p2
Construction near Laurel Canyon Blvd.	M/J '60 p7
Ventura Fwy. between Sepulveda Blvd. and Laurel Canyon Blvd.	M/J '60 p7
Aerial view of freeway showing hairpin turn on Sepulveda Blvd.,	M/I (60 0
and Mulholland Drive Br.	M/J '60 p8
San Fernando Valley section. J/F '59 p48; N/D '60 p43; Verter of Fernando Valley section. Welt Dispuse Statistics	M/A '61 i.cvr.
Ventura Fwy. in Burbank passing Forest Lawn, Walt Disney Studios,	M/I 46522
Providence High School, and St. Joseph's Hospital.	M/J '65 p32
Wilshire Blvd. in Los Angeles, 1910.	S/O '50 p95
Venice; old "speedway" shows expensive problems in road modernization.	F '38 p13
Madera Co.	
Rt. 41 [Rt. 125] Section of road in need of reconstruction on south entrance to Yosemite Park.	E '29 n15
Section of new direct 10 mile highway link into Yosemite.	F '38 p15 D '39 p14
Realigned section south approach to Yosemite.	D '39 p14 D '39 p15
Cut that required removal of 125,000 cu. yards of rock; construction scene.	D '39 p15
Rt. 99 [US 99]	D 39 p13
Chowchilla Bypass near junction with Rt. 152.	S/O '58 p37
North end connection under construction.	M/A '57 p62
Overcrossing and ramps, which will connect Rt. 99 to Chowchilla.	M/A '57 p62
Future northbound lane under construction near Califa underpass.	M/A '57 p63
Section crossing Berenda Slough.	M/A '57 p63
Madera Bypass. S/O '58 p35;	J/F '59 p49
Landscaped section near 4th St.	J/F '60 p60
Low-lying species of pyracantha planted on slopes of bypass.	J/F '60 p61
Madera Bypass showing turn-off for local traffic.	J/F '60 p61
Shoulder construction on Rt. 99 resurfacing project.	S/O '59 p9
and and compared on the 77 resultations project.	2, 0 27 p

ROUTES Madera Co., Continued

ROUTES Madera Co., Continued	
Rt. 145 [Rt. 126]	
Dirt being moved by wagon trains filled by hand labor an hauled by	
tractor to comply with WPA regulations.	Jun '41 p4
Stretch of new highway; road before reconstruction.	Jun '41 p5
Marin Co.	1
Marin access road to Dry Dock Training Center and Naval Net Depot on	
Tiburon Peninsula.	N/D '44 p3
Nicassio Rd. relocation, an FAS project.	J/A '61 p50+
Point Reyes Station-Novato Road, rock cut on.	M/A '49 p14
Rt. 17; 4-lane freeway approach to Richmond-San Rafael Br.	N/D '57 p29
Rt. 37; Black Point Cut-off, general views.	J/A '50 p41
Expressway construction on Black Pt. Cut-off near Atherton Ave.	M/A '59 p16
Modernized section of Black Point Cut-off near new Petaluma Creek Br.	J/F '60 p37
Rt. 37 at Atherton Ave. interchange, Black Point.	M/A '60 p17
Rt. 131 (Tiburon Blvd.) after improvement.	M/J '64 p33
Sir Francis Drake Blvd. [FAS Rt. 608], after realignment.	N/D '58 p31+
Sir Francis Drake Blvd., an example of a highway that is both	•
aesthetically pleasing and functional.	M/A '64 p63
US 101, Redwood Hwy.	1
Four-lane approach highway on new alignment to connect with north end	
of San Rafael Viaduct.	D '40 p10
Frontage road 1/4 mile north of Forbes overhead.	J/A '52 p33
Greenbrae construction underway showing new off-ramp bridge	-
connection to San Quentin.	M/J '61 p3
Hamilton Field AFB section near Novato, widened to six lanes.	M/J '65 p32
Channelized area at entrance to Hamilton Field.	S/O '45 p23+
Ignacio-Petaluma route	
Tractor and carryall combination excavating cut.	J/A '46 p14
Woolbridge Terra-Cobra scrapers excavating cut.	J/A '46 p15
Link belt power shovel and trucks excavating rocky material from cut.	J/A '46 p15
San Rafael	
Improving Redwood Hwy. near San Rafael, 1916.	J/A '64 p24
Puerto Suello Pass section.	May '38 p2+
Realignment through San Rafael near Grand Ave.	D '38 p11
Realignment looking from Puerto Suello cut south toward San Rafael.	D '38 p13
Section of new divided highway north of San Rafael.	Jul '41 p21
Redwood Hwy. looking north toward San Rafael.	M/A '54 p10
Section near San Rafael.	M/J '61 p3
Scenic section of US 101.	M/A '59 p1
Section north of Golden Gate Br.	M/A '59 p7
US 101 as seen from Richmond-San Rafael Br. looking toward Alto.	M/A '57 p17
Waldo (Marin) Approach to Golden Gate Br. [Golden Gate Bridge Fwy.]	
Heavy grading work on Marin approach.	Jan '37 p3
Constructing highway approach at north abutment of bridge.	Jan '37 p3
Placing of steel and form work at south portal of tunnel through hills.	Jan '37 p3
Ventilation precautions in wall drift.	Jan '37 p3
Waldo Approach looking downgrade toward Richardson's Bay, and	
junction of new road with state highway at Waldo Point.	May '37 p5
Putting finishing touches on section of new highway leading to bridge.	May '37 p5
Waldo approach showing one of deep cuts.	Jun '37 p3
Taken from Waldo tunnel mouth looking south towards bridge.	Jun '37 p3
Another stretch of highway leading to Marin side of bridge.	Jun '37 p3

ROUTES Marin Co., Continued	
Parade of autos arriving at S.F. toll plaza after dedication ceremony.	Jun '37 p3
Section of crowd gathered to witness dedication of Waldo Approach.	Jun '37 p16
Gov. Merriam delivers dedication speech over nationwide radio hookup.	Jun '37 p10
Sketch on photograph shows proposed Waldo Approach lighting system.	D '37 p12
Projected lighting system to protect traffic emerging from southern	D 37 p14
portal of Waldo Tunnel.	D '37 p15
Lighting system for Marin approach to Golden Gate Br.	D '37 p15
42 ft. plant mix surface on approach to Golden Gate Br.	May 38 p15
Channelized "Y" type intersection of Waldo approach. O '38 p10+;	Mar '40 p20
Construction operations on Waldo Grade widening project.	M/A '54 p9
Waldo Approach at Sausalito Interchange.	M/A '56 p17
Section approaching tunnel entrance near Spence Ave. showing	141/14 30 p1 /
extensive viaduct construction.	M/A '56 p17
Aerial view of freeway as it emerges from north portal of twin tunnels.	M/A '56 p20
Army tank crashing through barrier signalizing freeway opening.	M/A '56 p20
Southerly terminus of proposed widening project.	J/A '53 p10
W. Sandelin (CHC) at ground-breaking for Waldo Approach widening.	S/O '53 p14
Official party on deck of ground-breaking bulldozer.	S/O '53 p15
Bulldozer breaking ground.	S/O '53 p15
Mrs. Ann Jackson of San Rafael, Junior Engineer in office of	r
Assistant State Highway Engineer B.W. Booker, poses with Earl	
Withcombe and George T. McCoy.	S/O '53 p16
Excavation operations on Waldo Grade approach widening.	M/J '54 p56
Construction operations on Waldo Grade approach widening.	M/A '55 p13
Aerial view of Waldo approach looking toward San Francisco.	S/O '55 p60
Mariposa Co.	
One-way road west of Coulterville.	Mar '39 p10
Rt. 49 improvement near Mariposa before beginning of surfacing.	M/J '54 p45
Typical alignment on new construction.	M/J '54 p46
Rt. 120; Tioga Pass Rd.	
Eastern approach to Yosemite National Park via Tioga Pass, 1941.	J/A '60 p54
Tioga Pass Hwy. between Ellery and Tioga Lake cleared of snow and opened.	J/A '44 p3
Yosemite National Park looking east on old road, 1947.	J/A '44 p3 N/D '50 p3
	J/A '44 p3 N/D '50 p3 N/D '50 p3+
Yosemite National Park looking east on old road, 1947. New road, 1950, after two winters. Entering Yosemite National Park from east via Tioga Pass.	J/A '44 p3 N/D '50 p3
Yosemite National Park looking east on old road, 1947. New road, 1950, after two winters. Entering Yosemite National Park from east via Tioga Pass. Lee Vining Canyon section	J/A '44 p3 N/D '50 p3 N/D '50 p3+ M/J '66 p27
Yosemite National Park looking east on old road, 1947. New road, 1950, after two winters. Entering Yosemite National Park from east via Tioga Pass. Lee Vining Canyon section Survey crewman working on rock face during staking for realignment.	J/A '44 p3 N/D '50 p3 N/D '50 p3+ M/J '66 p27 J/F '66 p7
Yosemite National Park looking east on old road, 1947. New road, 1950, after two winters. Entering Yosemite National Park from east via Tioga Pass. Lee Vining Canyon section Survey crewman working on rock face during staking for realignment. Drills in operation during reconstruction.	J/A '44 p3 N/D '50 p3 N/D '50 p3+ M/J '66 p27 J/F '66 p7 J/F '66 p8
Yosemite National Park looking east on old road, 1947. New road, 1950, after two winters. Entering Yosemite National Park from east via Tioga Pass. Lee Vining Canyon section Survey crewman working on rock face during staking for realignment. Drills in operation during reconstruction. Blasting new right-of-way in Lee Vining Canyon near Elephant Head.	J/A '44 p3 N/D '50 p3 N/D '50 p3+ M/J '66 p27 J/F '66 p7 J/F '66 p8 J/F '66 p9
Yosemite National Park looking east on old road, 1947. New road, 1950, after two winters. Entering Yosemite National Park from east via Tioga Pass. Lee Vining Canyon section Survey crewman working on rock face during staking for realignment. Drills in operation during reconstruction. Blasting new right-of-way in Lee Vining Canyon near Elephant Head. Dump trucks used to shield office trailers during blasts.	J/A '44 p3 N/D '50 p3 N/D '50 p3+ M/J '66 p27 J/F '66 p8 J/F '66 p9 J/F '66 p10
Yosemite National Park looking east on old road, 1947. New road, 1950, after two winters. Entering Yosemite National Park from east via Tioga Pass. Lee Vining Canyon section Survey crewman working on rock face during staking for realignment. Drills in operation during reconstruction. Blasting new right-of-way in Lee Vining Canyon near Elephant Head. Dump trucks used to shield office trailers during blasts. Baled hay being spread on old sidehill viaduct as protection from blast.	J/A '44 p3 N/D '50 p3 N/D '50 p3+ M/J '66 p27 J/F '66 p8 J/F '66 p9 J/F '66 p10 J/F '66 p10
Yosemite National Park looking east on old road, 1947. New road, 1950, after two winters. Entering Yosemite National Park from east via Tioga Pass. Lee Vining Canyon section Survey crewman working on rock face during staking for realignment. Drills in operation during reconstruction. Blasting new right-of-way in Lee Vining Canyon near Elephant Head. Dump trucks used to shield office trailers during blasts. Baled hay being spread on old sidehill viaduct as protection from blast. Preliminary work on supports for new sidehill viaduct.	J/A '44 p3 N/D '50 p3 N/D '50 p3+ M/J '66 p27 J/F '66 p8 J/F '66 p9 J/F '66 p10 J/F '66 p10
Yosemite National Park looking east on old road, 1947. New road, 1950, after two winters. Entering Yosemite National Park from east via Tioga Pass. Lee Vining Canyon section Survey crewman working on rock face during staking for realignment. Drills in operation during reconstruction. Blasting new right-of-way in Lee Vining Canyon near Elephant Head. Dump trucks used to shield office trailers during blasts. Baled hay being spread on old sidehill viaduct as protection from blast. Preliminary work on supports for new sidehill viaduct. Traffic moving along Tioga Pass Rd. before improvements.	J/A '44 p3 N/D '50 p3 N/D '50 p3+ M/J '66 p27 J/F '66 p8 J/F '66 p9 J/F '66 p10 J/F '66 p10 J/F '66 p10 J/F '66 p12
Yosemite National Park looking east on old road, 1947. New road, 1950, after two winters. Entering Yosemite National Park from east via Tioga Pass. Lee Vining Canyon section Survey crewman working on rock face during staking for realignment. Drills in operation during reconstruction. Blasting new right-of-way in Lee Vining Canyon near Elephant Head. Dump trucks used to shield office trailers during blasts. Baled hay being spread on old sidehill viaduct as protection from blast. Preliminary work on supports for new sidehill viaduct. Traffic moving along Tioga Pass Rd. before improvements. Widened route near Dodge Point awaiting final asphalt surfacing.	J/A '44 p3 N/D '50 p3 N/D '50 p3+ M/J '66 p27 J/F '66 p7 J/F '66 p8 J/F '66 p10 J/F '66 p10 J/F '66 p10 J/F '66 p12 J/F '66 p12
Yosemite National Park looking east on old road, 1947. New road, 1950, after two winters. Entering Yosemite National Park from east via Tioga Pass. Lee Vining Canyon section Survey crewman working on rock face during staking for realignment. Drills in operation during reconstruction. Blasting new right-of-way in Lee Vining Canyon near Elephant Head. Dump trucks used to shield office trailers during blasts. Baled hay being spread on old sidehill viaduct as protection from blast. Preliminary work on supports for new sidehill viaduct. Traffic moving along Tioga Pass Rd. before improvements. Widened route near Dodge Point awaiting final asphalt surfacing. Bulldozer clearing blast debris from right of way in Tioga Pass.	J/A '44 p3 N/D '50 p3 N/D '50 p3+ M/J '66 p27 J/F '66 p7 J/F '66 p8 J/F '66 p10 J/F '66 p10 J/F '66 p10 J/F '66 p12 J/F '66 p12 J/F '66 p12
Yosemite National Park looking east on old road, 1947. New road, 1950, after two winters. Entering Yosemite National Park from east via Tioga Pass. Lee Vining Canyon section Survey crewman working on rock face during staking for realignment. Drills in operation during reconstruction. Blasting new right-of-way in Lee Vining Canyon near Elephant Head. Dump trucks used to shield office trailers during blasts. Baled hay being spread on old sidehill viaduct as protection from blast. Preliminary work on supports for new sidehill viaduct. Traffic moving along Tioga Pass Rd. before improvements. Widened route near Dodge Point awaiting final asphalt surfacing. Bulldozer clearing blast debris from right of way in Tioga Pass. Dodge Point section and sidehill viaduct before improvement.	J/A '44 p3 N/D '50 p3 N/D '50 p3+ M/J '66 p27 J/F '66 p8 J/F '66 p9 J/F '66 p10 J/F '66 p10 J/F '66 p12 J/F '66 p12 J/F '66 p12 J/F '66 p12 J/F '66 p12
Yosemite National Park looking east on old road, 1947. New road, 1950, after two winters. Entering Yosemite National Park from east via Tioga Pass. Lee Vining Canyon section Survey crewman working on rock face during staking for realignment. Drills in operation during reconstruction. Blasting new right-of-way in Lee Vining Canyon near Elephant Head. Dump trucks used to shield office trailers during blasts. Baled hay being spread on old sidehill viaduct as protection from blast. Preliminary work on supports for new sidehill viaduct. Traffic moving along Tioga Pass Rd. before improvements. Widened route near Dodge Point awaiting final asphalt surfacing. Bulldozer clearing blast debris from right of way in Tioga Pass. Dodge Point section and sidehill viaduct before improvement. Tioga Pass Rd. at Dodge Point before widening.	J/A '44 p3 N/D '50 p3 N/D '50 p3+ M/J '66 p27 J/F '66 p8 J/F '66 p9 J/F '66 p10 J/F '66 p10 J/F '66 p12 J/F '66 p12 J/F '66 p12 J/F '66 p12 J/F '66 p12 J/F '66 p13
Yosemite National Park looking east on old road, 1947. New road, 1950, after two winters. Entering Yosemite National Park from east via Tioga Pass. Lee Vining Canyon section Survey crewman working on rock face during staking for realignment. Drills in operation during reconstruction. Blasting new right-of-way in Lee Vining Canyon near Elephant Head. Dump trucks used to shield office trailers during blasts. Baled hay being spread on old sidehill viaduct as protection from blast. Preliminary work on supports for new sidehill viaduct. Traffic moving along Tioga Pass Rd. before improvements. Widened route near Dodge Point awaiting final asphalt surfacing. Bulldozer clearing blast debris from right of way in Tioga Pass. Dodge Point section and sidehill viaduct before improvement. Tioga Pass Rd. at Dodge Point before widening. Mono Craters and White Mountain as seen from Lee Vining Canyon.	J/A '44 p3 N/D '50 p3 N/D '50 p3+ M/J '66 p27 J/F '66 p8 J/F '66 p9 J/F '66 p10 J/F '66 p10 J/F '66 p12 J/F '66 p12 J/F '66 p12 J/F '66 p12 J/F '66 p13 J/F '66 p13
Yosemite National Park looking east on old road, 1947. New road, 1950, after two winters. Entering Yosemite National Park from east via Tioga Pass. Lee Vining Canyon section Survey crewman working on rock face during staking for realignment. Drills in operation during reconstruction. Blasting new right-of-way in Lee Vining Canyon near Elephant Head. Dump trucks used to shield office trailers during blasts. Baled hay being spread on old sidehill viaduct as protection from blast. Preliminary work on supports for new sidehill viaduct. Traffic moving along Tioga Pass Rd. before improvements. Widened route near Dodge Point awaiting final asphalt surfacing. Bulldozer clearing blast debris from right of way in Tioga Pass. Dodge Point section and sidehill viaduct before improvement. Tioga Pass Rd. at Dodge Point before widening.	J/A '44 p3 N/D '50 p3 N/D '50 p3+ M/J '66 p27 J/F '66 p8 J/F '66 p9 J/F '66 p10 J/F '66 p10 J/F '66 p12 J/F '66 p12 J/F '66 p12 J/F '66 p12 J/F '66 p12 J/F '66 p13

ROUTES Mariposa Co., Continued	
Rt. 140 [Rt. 18, Yosemite All-Year Hwy.]	
Realigned sections through Mariposa.	Aug '41 p4+
Briceburg Grade; Typical cut slope on Briceburg Grade.	M/J '54 p43
Power shovel at work on Briceburg Grade.	M/J '54 p43
Improvement near Mariposa; Drilling for blasting realigned portion.	M/J '54 p44
Portion of existing road to be widened and resurfaced.	M/J '54 p44
Construction underway north of Mariposa.	J/A '58 p19
Improved and flood-repaired section through Merced Canyon.	J/F '60 p37
Mendocino Co.	1
Rt. 1; Westport-Leggett Valley reconstruction near Juan Creek Bluffs.	M/J '58 p35
Giant cuts made in Juan Cr. bluffs as part of reconstruction job.	M/J '58 p36
Rt. 20; Russian River Reservoir relocation	1
Rugged sidehills being traversed by relocation in canyon of	
East Branch of Russian River.	M/J '57 p1
Westerly end of Russian River relocation project at Calpella.	M/J '57 p3
Rugged canyon of East Branch of Russian River.	M/J '57 p3
Easterly end of Russian River Reservoir relocation project.	M/J '57 p3
Rt. 20 at the Mendocino-Lake Co. line.	M/J '57 p4
Near beginning of improvement looking west.	M/J '57 p4
Heavy sidehill construction in canyon of the E. Branch of Russian Rvr.	J/A '58 p42
Rt. 128 [Rt. 28]	r v P
Flynn Creek-Navarro section winding through heavy growths of redwoods.	Aug '42 p16
Redwoods in path of new highway realignment.	Aug '42 p17
Logs being cut to commercial lengths.	Aug '42 p17
Boonville; realignment under construction southeast of Boonville.	N/D '52 p54
Rt. 253; pioneer fence still marks right-of-way.	
Section of completed roadway, built in cut rather than fill due to	
unstable soil conditions.	J/A '66 p27
Realigned section, old pioneer toll road visible at right.	J/A '66 p27
US 101 (Redwood Hwy.)	1
"Kennedy's Survey Party" in camp near Leggett, 1913.	J/A '64 p26
Laytonville realignment, grading work in progress.	O '37 p15
Before/after views of alignment.	O '37 p15
2 views of old highway showing two of 59 curves on route.	O '37 p15
Hopland section after improvement.	N/D '43 p16
Before/after views of improved section.	N/D '43 p17
Outlet Creek-Reeves Creek section showing crooked alignment of old road.	May '37 p7
Outlet Creek-Reeves Creek showing new alignment.	May '37 p7
Rattlesnake Summit area, reconstruction over slide, late 1920s.	J/A '64 p32
Red Mt. Creek-Piercy unit	1
Roadway approaching Red Mt. Creek Br.	N/D '48 p44
Approaching McCoy Cr. crossing.	N/D '48 p44
Wide roadway which replaced narrow road through unstable area.	N/D '48 p45
Roadway along Eel Rvr.	N/D '48 p45
Ridgewood grade project, heavy construction on.	N/D '53 p9
Bench cut on Ridgewood grade project.	N/D '53 p10
Crowd on highway at dedication ceremony.	N/D '54 p35
Official party at dedication luncheon.	N/D '54 p35
Expressway crossing Ridgewood Summit.	S/O '64 p19
Section skirting Frank and Bessie Smith [redwood] Grove (formerly Lane's	1
Redwood Flat) just south of Mendocino-Humboldt Co. line.	S/O '64 p16
/ *	

ROUTES Mendocino Co., Continued

ROUTES Mendocino Co., Continued	
Willits	
Ridgewood Summit road near Willits in 1938, typical of old "reverse	
curve" construction.	J/A '64 p33
Section north of Willits in Long Valley Cr. Canyon.	N/D '59 p37
Highway through Main Street, Willits.	S/O '64 p17
Redwood Hwy. south of Willits, early 1900s.	M/J '64 p10
Devil's Knee on old highway, 1911.	M/J '64 p10
Ukiah; freeway section just north of Ukiah.	S/O '64 p19
Ukiah Bypass looking north toward Calpella.	M/A '66 p47
Ukiah Bypass showing "trumpet type" interchange with Rt 20.	M/A '66 p47
Merced Co.	1
Bellevue Rd. improved at Livingston Canal crossing.	M/A '64 p53
Bellevue Rd at intersection with Buhach Rd.	M/A '64 p55
I-5 [Westside Fwy.]	· · · · · · · · · · · · · · · · · · ·
Nearly completed section northwest of Los Banos.	M/A '66 p39
Sen. James A. Cobey of Merced and Dist. 10 Engineer John Meyer ride	112/11 00 pb >
Mexican carrreta pulled by members of Rt. 33 Assoc. to celebrate	
of opening of I-5 unit.	J/A '66 p16
Los Banos; Medical Center parking; Off-street parking at restaurant.	J/F '56 p46
"No Parking" signs on Pacheco Blvd.; City owned parking lot.	J/F '56 p47
Los Banos-Turlock Rd. [FAS 914] showing bridge across San Joaquin Rvr.	M/J '61 p43
Los Banos-Turlock Rd. [1745 914] showing Santa Fe Canal crossing.	M/J '61 p44
Rt. 33 improvement south of Gustine showing new alignment.	M/J '54 p47
Rt. 99 [US 99]	1V1/J 34 p4/
•	M/A 440p25
Livingston, near south city limits.	M/A '49p25
Improvements looking southeasterly from Livingston.	M/A '49 p26
Atwater Bypass. J/F '58 p46;	J/A '59 p3
Merced Bypass under construction. N/D '61 p15;	J/A '64 p46
Rt. 99 freeway at Rt. 140 (V St.) interchange.	J/A '64 p44
Completed freeway.	J/A '64 p46
Buhach; Divided 4-lane highway section showing county road intersection	31/5 (45, 00
channelization with raised bar island and cross-over between traffic lanes.	N/D '47 p22
Rt. 140, Gustine-Merced Hwy., near Gurr Rd.	M/J '54 p48+
Merced Canyon on route to Yosemite Valley.	M/J '50 p43
Rt. 152 (Pacheco Pass Hwy.)	
Truck parking area at summit.	J/A '65 p2
Section crossing San Luis Reservoir showing "Cottonwood Fill."	J/A '65 p3
Compaction test being performed at night.	J/A '65 p4
Drilling operations in progress.	J/A '65 p4
"Big Cut" and "Big Fill."	J/A '65 p6
"Big Fill" at rough grade level.	J/A '65 p7
Santa Fe Dr. in Merced, divided and improved section.	J/A '66 p44
Santa Fe Dr before improvement.	J/A '66 p44
Modoc Co.	
Rt. 139-299; Susanville-Altura Rd. before improvement; After improvement.	M/J '56 p36
Rt. 299 [Rt. 28; Rt. 3, Pacific Hwy.]	_
Adin Summit on US 299.	M/A '58 p6
Adin-Alturas expressway after completion.	S/O '64 p11
Expressway on Rt. 299 northeast of Adin.	N/D '64 p9
Alturas-Cedarville Rd. under construction, 1906.	M/A '51 p39
Hand excavation through lava rock formation on Alturas-Cedarville Rd.	S/O '50 p93

California Highways and Public Works

PHOTOGRAPH INDEX 1937-1967

ROUTES Modoc Co., Continued Bonner Grade realignment Bulldozer working on rugged terrain. M/A '51 p40 Heavy grading near Division of Hwys. maintenance station. M/A '51 p40 Near summit of Bonner Grade after grading operations M/A '51 p41 Same section under construction, 1906 M/A '51 p39 M/A '51 p41 Aerial view of completed Bonner Grade project. Cedar Pass west approach between Alturas and Cedarville. M/A '58 p6 Hot Creek-Alturas unit after improvement. Mar '38 p13 Entering Alturas on new highway. Mar '38 p13 Rush Creek before reconstruction, winter view. S/O '64 p12+ Surprise Valley Rd. near Cedarville [FAS project.]. M/J '47 p23+ US 395 east of Alturas at junction with Rt. 299 [Rt. 28] to Cedarville. M/A '58 p12 Bridgeport Wagon Rd. Section of cleared line for Bridgeport Wagon Rd. survey. S/O '53 p17 S/O '53 p18 East Walker River; Beaver dams flood survey line. Beginning of survey; section of existing pioneer road. S/O '53 p19 Minarets Summit Rd. FAS project after surfacing. J/F '55 p41 Section of Old Minarets Rd before reconstruction. J/F '55 p41 J/F '55 p42 Earthquake fault crossed by Minarets Summit Rd. Parking area near Mammoth Lake on Minarets Summit Rd. J/F '55 p42 Pole Line Rd., Gov. Charles H. Russell of Nevada cuts ribbon at dedication. N/D '57 p21 Section of improved Pole Line Rd. near Nevada State Line. S/O '58 p10 Rt. 89; Ebbetts Pass Hwy. (Alpine Co.)-US 395 junction unit S/O '54 p23 Wanda Durkee (Mrs. Frank B.) snips ceremonial ribbon. S/O '54 p23 Scene at dedication; Mono Co. Supervisor Gene Crosby. dedication. S/O '54 p24 Section of new road. Rt. 120 [Rt. 40, Tioga Pass Hwy.] Benton Rd., near Mono Mills. Jan '39 p6 Jan '39 p6 Narrow, crooked road through June Lake Village. Section looking toward Camp Tioga before/after improvement. Jul '41 p4 Jul '41 p5 Vista of Tioga Lake. Looking easterly from Yosemite Park checking station. Jul '41 p5 Jul '41 p5 Entrance to Yosemite Valley. Section at Lee Vining Creek Br. before/after improvement. Jul '41 p6 Section of Tioga Pass Hwy. before/after realignment. Jul '41 p7 Bulldozer in operation clearing Rt. 120 (Tioga Pass Rd.). N/D '64 p16 Rt. 168 looking east into Deep Springs Valley. J/A '66 p35 Rt. 203; Mammoth Lakes Hwy. Attractive view looking across Lake Mary from new highway. D '37 p6 View of Twin Lakes, with new highway in distance. D '37 p6 D '37 p7 Where highway crosses ornamental bridge structure. Scenic stretch of new highway showing heavy timber growth. D '37 p7 Rt. 266 where route drops down into Owens Valley. J/A '66 p34 Large sign marking turn-off to Bristlecone Pine Forest. J/A '66 p34 Section at Nevada state line. J/A '66 p35 Section approaching Inyo Co. line. J/A '66 p35 J/A '66 p35 View from Gilbert Pass. J/A '66 p35 Sign at Westgard Pass dating back to 1916. Sweetwater Rd. FAS realignment around pond on East Walker River. M/A '55 p41

M/A '55 p41

M/A '55 p40

Section of old alignment.

Channel change on East Walker River.

ROUTES Mono Co., Continued	
US 395 [Leg. Rt. 23, Sierra Hwy.]	
Convict Lake as seen from US 395.	J/A '52 p40+
Lake Mary in Mono Co., reached by US 395.	J/A '52 p40
Mono Lake-Conway Summit section	1
New alignment along shore of Mono Lake.	Apr '37 p19
View from Conway Grade looking over Mono Lake near Mono craters.	Apr '37 p19
Section near Mono Lake being relocated and improved.	S/O '58 p7
Section along shoreline of Mono Lake, Conway Grade in distance.	S/O '58 p9
Carving a new route for US 395 over Conway Summit.	N/D '61 p69
High Sierra, Mono Valley, and Mono Lake as seen from Conway Summit.	
Sherwin Grade	5/1 00 p10
Looking into Long Valley from Sherwin Grade, north of Bishop.	Apr '37 p19
Switchback alignment up Sherwin Hill south of summit.	Aug '37 p11
Curves which will be eliminated from Sherwin Hill route.	Aug '37 p11
Looking south from Sherwin Hill into Round Valley.	Aug '37 p11
Curves being realigned out of Sherwin Grade.	Aug '37 p11
Section of Sherwin grade north of summit before improvement.	N/D '55 p14
Aerial view of Sherwin grade showing proposed relocation.	N/D '55 p15
Proposed relocation in Upper East Mesa area.	N/D '55 p15
Proposed relocation in Whiskey Canyon area.	N/D '55 p16
Proposed relocation in Winskey Canyon area.	N/D '55 p16
	N/D 33 p10
Monterey Co.	I/A 445 m22
Access road between King City and Camp Hunter Liggett.	J/A '45 p23
Los Laureles Grade Rd. [FAS 660] after reconstruction.	M/A '61 p69 M/A '61 p70
Los Laureles Grade Rd. in 1956; Same section after reconstruction.	WI/A OI p/O
Rt. 1 [Rt. 56]	Iul (27 ml)
Carmel-San Simeon Hwy. dedication.	Jul '37 p1+
Portion of auto caravan at Carmel-San Simeon dedication.	Jul '37 p3
Section of new highway.	Jul '37 p3
Gov. Merriam and Earl Lee Kelly operate bulldozer to remove last	I 1 (27 C
boulder barricade from new highway.	Jul '37 C
Completed San Simeon-Carmel Hwy.	M/J '50 p45
Guard rail installation on Monterey Coast Hwy.	N '40 p13
Monterey-Castroville access project near Ft. Ord.	J/A '45 p23
Rt. 198; Mustang Ridge, improved section of.	O '41 p5
Procession of cars at dedication ceremony for realigned Mustang Ridge unit.	O '41 p4
Rt. 156	
Prunedale Cut-off	
Unfinished section of Castroville-Prunedale road.	F '43 p18
Realigned and regraded sections of cut-off.	F '43 p19
Transitions on divided highway where old pavement changes from	
right to left set of lanes.	J/A '47 p24
Erosion protection on embankment slope.	J/A '47 p25
4-lane divided highway developed from existing 2-lane highway.	J/A '47 p25
Marina-Castroville section, completed.	S/O '44 p10+
Seaside Junction-North Fort Ord boundary project, completed.	S/O '44 p10+
US 101	
Bradley; tractor and yard scraper at work on realignment.	D '39 p9
Bradley-San Ardo Fwy. N/D '64 p11;	M/J '65 p8
Bradley-San Ardo freeway near San Bernadino overcrossing.	M/J '65 p6+
Looking eastward along Jolon Rd. toward new freeway.	M/J '65 p7
Old highway under construction, 1933.	M/J '65 p8

ROUTES Monterey Co., Continued	
Chualar section, general views. J/A '54 p	2; N/D '61 p20
Depressed freeway section through Chualar.	J/A '58 p26
Chualar-Spence Underpass unit, construction on.	J/F '52 p53
Applying water to base material by means of power sprays.	J/F '52 p54
Completed section between Chualar and Spence Underpass.	J/F '52 p54
Crazy Horse Summit 4-lane divided highway.	J/A '47 p1
Dirt road in Monterey replaced with new paved alignment, shown at left.	Jul '39 p22
Greenfield Bypass on US 101.	N/D '61 p7
Greenfield-King City expressway.	S/O '58 p18
Salinas, showing widening of division strip at county road intersection.	J/F '47 p30
Curved division strip with acceleration lane.	J/F '47 p31
Division strip on transmission from 2-lane to 4-lane divided highway.	J/F '47 p32
Salinas Fwy. section near Alisal.	M/A '54 p37
Aerial photo indicating proposed Salinas Fwy. location.	N/D '51 p28
Completed portion of Salinas Fwy.	J/A '54 p3
Salinas Bypass near interchange with Rt. 17.	J/A '58 p25
Salinas Bypass as seen from John St. overcrossing.	J/A '58 p29
Santa Rita-Crazy Horse Summit unit widening, existing 2-lane roadbed.	J/A '46 p6
Mississippi wagon used to haul excavation materials.	J/A '46 p7
View of embankment construction activities.	J/A '46 p7
Scraper used on embankment material.	J/A '46 p32
Section of 4-lane divided highway developed from existing 2-lane highway	y. S/O '50 p143
Soledad Bypass; traffic through Soledad before bypass.	M/A '61 p54
Soledad-Greenfield expressway near Arroyo Seco Overhead.	J/A '58 p28
Old highway through Soledad.	J/A '58 p28
Entrance to Soledad State Prison before widening.	J/A '58 p30
Detour at beginning of project between King City and Greenfield.	J/A '58 p32
Napa Co.	D (41 - 11
I-80 [US 40], American Canyon Cut-off, adding additional lanes to.	D '41 p11
Vallejo-Napa Hwy. access road	0/0 (44 0
Napa Wye-Vallejo 4-lane highway before paving operations.	S/O '44 p8
Paving operations between Napa Wye and Napa City.	S/O '44 p9
Carryalls grading on Vallejo-Napa highway.	S/O '44 p23
Rt. 29; widened section north of Napa between Union Station and Orchard Ave	
Yountville Bypass on Rt. 29 near California Dam Interchange.	M/A '60 p17
Nevada Co. I-80 [US 40]	
Construction east of Kingvale.	J/A '59 p23
Donner SummitSee also SNOW	3/A 39 p23
Granite heaps between Emigrant Gap and Donner Summit over	
which pioneer state highway engineers constructed a route.	S/O '50 p67
I-80 [US 40] in same location ca 1950.	S/O '50 p67
Newly paved section bordering Donner Lake.	O '37 p1+
View of section of new Donner Summit highway.	O '37 p3
Rock cut to be widened at Donner Summit.	J/A '48 p2
Relocating old road to provide interstate route over Donner Summit.	N/D '61 p19
I-80 freeway superseding old US 40 at Donner Summit.	N/D '64 C
Old US 40 route at Donner Summit and new I-80 freeway.	J/F '65 p42
Old Donner road ca. 1923-24.	J/F '65 p43
Emigrant Gap on new I-80 freeway.	J/F '65 p44
New summit area of I-80 in vicinity of West Lakes.	J/F '65 p44
I-80 near Cisco Grove showing unusual median.	J/F '65 p45
ROUTES Nevada Co., Continued	

131

Section near Soda Springs.	J/F '65 p45
Freeway roadways as seen from Yuba Gap.	J/F '65 p46
Eastbound road and frontage road near Donner Summit cleared of snow.	J/F '65 p46
Traffic congestion during snow conditions on old highway [US 40].	J/F '65 p47
Graders removing snow at old Donner Grade after big storm of 1952.	J/F '65 p47
I-80 freeway over Donner Pass.	N/D '65 p5
Aerial view of I-80 showing entire Donner Pass country.	M/A '66 p8
Split-level design, winner of Governor's Design Award. N/D '66 p23;	J/F '67 p37
I-80 near Donner Summit ca. 1950s, before freeway renovation.	J/F '67 p17
Same area, ca. 1964, after freeway conversion.	J/F '67 p17
Floriston-Nevada state line route before widening.	S/O '56 p40
Paving operation Floriston-Nevada state line.	J/A '58 p4
Fly-casters curve [near Truckee], before widening.	J/A '48 p3
Section to be widened, looking east near Donner Summit near Donner Br.	J/A '48 p2
New and old routes of state highway east of Emigrant Gap.	S/O '50 p67
Truckee River Canyon section under construction.	M/J '57 p20
Truckee River Canyon, indicating relocated route of US 40.	M/J '57 p21
Cover page on folder distributed to motorists using route.	M/J '57 p22
Traffic passing through construction area between Truckee and Nevada.	N/D '57 p15
Aerial view of construction.	N/D '57 p16
Completed section in Truckee Canyon west of CA-NV state line.	N/D '59 p1
Section near Boca Br. and Overhead.	N/D '59 p2
Hampton Rocks-Soda Springs unit just before completion.	N/D '59 p4
Western outskirts of Truckee and I-80/Rt. 89 intersection.	N/D '59 p5
2-lane road over summit provided with passing lanes on up-grades.	N/D '59 p6
Working on asphalt shoulder on	
Hampshire Rocks-Soda Springs section, working on asphalt shoulder.	N/D '59 p28
Setting guard railing on Boca Br. approach.	N/D '59 p28
Self-propelled scrapers and bulldozers cutting stabilized trenches.	N/D '59 p28
Concrete saw cutting joints in new pavement near Soda Springs.	N/D '59 p28
Truck-mounted profilograph checking smoothness of paving.	N/D '59 p29
Placing freeway signs on Truckee Canyon section.	N/D '59 p29
Rt. 49 [Rt. 25] (Mother Lode Hwy.)	
Auburn-Grass Valley section. O '40 p20+;	M/J '49 p50
Grass Valley, Main St. before and after reconstruction.	J/A '60 p48
Nevada City-Downieville route	
"Road of a Thousand Curves" in need of improvement.	Aug '38 p1
Heavy rock excavation in progress on realigned section.	M/J '46 p2
Section of new highway between Nevada City and Downieville.	M/J '46 p3
Rt. 89 at channelized intersection for Squaw Valley turn-off.	N/D '59 p5
Rt 267; sign on I-80 near Truckee indicating Rt. 267 turn-off.	M/A '66 p43
Orange Co.	
Brookhurst-Wright St. [FAS Rt. 747]	
Looking southerly along Wright Ave. toward intersection of Bolsa Ave.	M/J '52 p38
Looking north along Brookhurst St.	M/J '52 p39
Garden Grove Blvd. (Garden Grove), improved section.	
Harbor Blvd. (Garden Grove) looking north to 800-ft. radius curve.	N/D '47 p9
Harbor Blvd. near intersection of Garden Grove Blvd.	N/D '47 p35
Harbor Blvd. looking north to Bolsa Ave.	N/D '47 p35
Harbor Blvd. between Santa Ana and Costa Mesa.	S/O '60 p19
Harbor Blvd reconstruction near intersection with Garden Grove Blvd.	S/O '64 p47+
Harbor Blvd before/ after improvement.	S/O '64 p48

ROUTES Orange Co., Continued

OUTES Orange Co., Continued	
Houston St. (Placentia) [Rt. 14; Houston Expressway]	
Cypress AveSanta Ana Cyn. Rd. unit, ribbon-cutting ceremony.	J/A '56 p56
I-5; Santa Ana FwySee also ROADSIDE BUSINESS & BYPASSES	1
San Clemente unit.	
Streamliner train negotiating long curve on relocated route.	F '42 p8
Stretch of relocated track and US 101; Portion of old and new highway.	F '42 p9
Asphalt concrete resurfacing of highway near San Clemente.	M/J '45 p13
Construction work east of Euclid Ave. grade separation.	S/O '48 p42
Construction through Buena Park.	N/D '50 p20
Construction underway near county line.	N/D '50 p21
Construction in Santa Ana near 17th St. undercrossing. J/F '52 p21;	N/D '52 p17
Construction in progress on overhead bridge from Main St., Santa Ana.	N/D '52 p17
Section near Washington Blvd. Undercrossing.	N/D '52 p17
Construction at L.A. Ave. intersection at Miraflores (Anaheim-Santa Ana).	N/D '52 p17
Construction progress at crossing with Lakewood Blvd.	N/D '52 p21
Section bypassing main business and residential areas of Santa Ana.	J/F '55 p19
Tustin Ave. to 1st St. section.	J/A '55 p53
Construction on Browning Ave-1st St. (Tustin) section.	J/A '55 p51+
Construction near Chapman Ave Traffic Interchange System, drive-in	the corporation
theater, and Orange Co. Hospital.	S/O '55 p13
Completed section through Tustin at interchange with Tustin Ave.	J/F '57 p7
Construction underway through Anaheim at Lincoln Ave.	J/F '57 p8
Construction in Buena Park at Grand Ave.	J/F '57 p15
Construction in Buena Park at crossing of Artesia Ave.	J/F '57 p15
Harbor Blvd. at Disneyland and interchange with Santa Ana Fwy.	J/F '57 p16
Construction between Broadway and Lewis St. near Orange Co. Gen. Hospital.	
Section looking south from Laguna Canyon Rd. (Rt. 55)	J/A '58 p24
Construction between Anaheim and Buena Park.	J/F '58 p48
Construction through Anaheim near Broadway-Anaheim shopping center.	J/F '58 p49
Completed section approaching Laguna Canyon Rd. separation bridge.	S/O '58 p13+
View southeast from Jeffrey Rd. looking toward Irvine.	S/O '58 p15
Culver Rd. section and undercrossing.	S/O '58 p15
Signing on new section of freeway.	S/O '58 p16
I-405; San Diego Fwy.	
Old US 101 and proposed route of San Diego Fwy. through San Clemente.	J/F '57 p12
San Diego Fwy. overcrossing in San Juan Capistrano.	J/F '58 p49
Completed section through San Clemente.	N/D '58 p41+
Section near San Juan Capistrano Mission at interchange with Ortega Hwy.	J/F '59 p35
Construction underway between San Mateo Cr. and Niguel Rd.	J/F '59 p36
Completed section near Niguel RdEl Toro Rd. interchange.	J/F '60 p17
Interconnecting roadway between US 101 and San Diego Fwy. near	
Capistrano Beach.	J/F '60 p18
Construction skirting town of San Clemente.	J/F '60 p65
Construction between San Clemente and Capistrano near Camino de	
Estrella overcrossing.	S/O '60 p46
Completed section in San Clemente.	M/A '61 p15
Dedication ceremony for Los Angeles-Orange Co. unit of San Diego Fwy.	M/J '65 p33
Lincoln Ave. after widening (Anaheim).	J/F '60 p10
Manchester-Firestone Boulevard [Rt. 42; Leg. Rt. 174]	
Officials guests at opening of Anaheim link.	May '37 p19
New link of Manchester Blvd. south of Anaheim.	May '37 p19
Nicolas Ave. extension between Fullerton and LaHabra under construction.	S/O '60 p19

ROUTES Orange Co., Continued Rt. 22; Garden Grove Fwy. Section under construction near Knott, and Newland St. M/A '64 p28 Depositing load of central mix concrete, Harbor Blvd.-Haster St. unit. M/A '65 p48 Section through Garden Grove. J/A '66 p22+ Rt. 39 [Rt. 171] 4-lane divided highway through Buena Park. Jan '43 p16 Curbed, triangular traffic island on new route. Jan '43 p17 View of 4-lane section through orange orchards. Jan '43 p17 Rt. 55; Newport Fwy. [Leg. Rt. 43; Santa Ana Canyon Fwy.] Costa Mesa limited access freeway. N/D '53 p44+ Newport Fwy. at junction with Yorba Blvd. J/F '54 p5 Rt. 73 [Rt. 184; Corona Del Mar Fwy.] Santa Ana-Corona del Mar link under construction. Jun '41 p23 Graded route at Corona del Mar end; Junction point with Rt. 1. Jun '41 p23 Rt. 90 [176; Rt. 43]; Imperial Hwy. Section looking east from Sepulveda Blvd. near L.A. Municipal Airport. J/F '45 p3 Improved Imperial Hwy. looking east from Isis Ave. J/F '45 p4 Yorba Linda Fwy. between Orangethorpe Ave. and Yorba Linda. M/A '64 p29 Rt. 91; Artesia-Riverside Fwy. [Houston Fwy., Rt. 175 Fwy.] Southerly on Rt. 43 at temporary connection for detour to frontage road. J/A '55 p54 Completed freeway at Santa Ana Rvr. bridges, showing connection to Newport Fwy (Rt. 55) J/F '57 p5 View eastward toward interchange with Brookhurst Ave. J/F '59 p42 Miss Orange Co. cuts ribbon dedicating Artesia-Riverside Fwy. J/F '67 p10 Rt. 133; Laguna Canyon Rd. [Laguna Blvd., Rt. 185] Completed construction in Laguna Canyon near Laguna Beach. S/O '52 p6 Section near Canyon Acres Dr. showing newly planted cuttings for center divide strip. S/O '52 p7 S/O '52 p12 Constructing storm drain at north city limits of Laguna Beach. J/A '58 p23 Improved section of. Santa Ana Canyon Rd. [Rt. 18], completed section. J/A '52 p36+ Placer Co. I-80 [US 40] Auburn section--See also ROADSIDE BUSINESSES & BYPASSES Looking northeast from beginning of relocation through city. N/D '46 p8 Grading equipment constructing fill near SP Overhead. N/D '46 p9 Looking west across Walsh St. undercrossing during construction. N/D '46 p9 S/O '50 p99 Aerial view of realigned section through Auburn. Realignment near Auburn. N/D '57 p17 Completed freeway section west of Auburn. J/F '59 p50 N/D '59 p6 Section of expressway in vicinity of Auburn. Applegate-Auburn relocation, grading operations, existing highway on left. J/A '49 p50 M/A '51 p58 Looking east on new 4-lane divided alignment. Baxter; batch plant in operation. N/D '59 p4 Interstate freeway construction near Baxter. N/D '61 i.cvr. Baxter-Emigrant Gap realignment near Airport Hill. J/A '59 p25 Colfax; widening construction underway. J/A '57 p32 Improved section east of Colfax. J/F '60 p29 N/D '53 p38 Expressway through Sierra Nevada foothills east of Auburn. "First Division of Highways Shed" on I-80 [US 40], in Baxter. S/O '56 p41 Magra Overhead, construction near underway. J/A '59 p23 Completed section looking east toward Magra Overhead. N/D '59 p4

ROUTES Placer Co., Continued Monte Vista; reconstructed county road at providing detour around I-80 [US 40] construction in this area. N/D '59 p6 Monte Vista-Baxter unit; equipment drying out subgrade on new right-of-way. N/D '59 p29 Newcastle; looking easterly from Wise Powerhouse. S/O '56 p41 Beginning of project, east of Newcastle. Newcastle-Auburn unit construction underway. N/D '57 p17 N/D '59 p4 Roseville-Newcastle, completed section between. Weimar-Gold Run construction. N/D '57 p16 N/D '57 p16 Cut and fill construction near Cape Horn. I-80; Roseville Fwy. [US 40 Ben Ali-Roseville Fwy.] Section near Sacramento Co. line showing construction along new freeway. J/A '54 p6 George T. McCoy with Selden Menefee, Pres. Greater N. Area Chamber of Commerce, and State Sen. Harold T. Johnson at dedication. M/J '56 p29 Lt. Gov. Harold J. Powers applies torch to "golden" chain. M/J '56 p30 Auto caravans head for Sacramento and Roseville after dedication ceremony. M/J '56 p29 M/J '56 p31 Directional sign with upper and lower case letters. Completed section of Roseville Fwy. J/F '57 p58 Section of I-80 [US 40-99E] through rural portion of Roseville. M/A '61 p31 M/A '61 p34 Same section during construction in 1954. Subdivision off I-80 [US 40-99E] in Roseville. M/A '61 p33 Roseville; traffic at intersection of Rt. 65 [US 99E] blocked by SP RR F '38 p1 Rt. 49 (Mother Lode Hwy.) Auburn; construction underway at I-80 [US 40] intersection. River grade just above American River before/after widening. N/D '47 p14 Rt. 89 near Cabin Creek, south of Donner Creek Underpass. J/A '59 p27 Rt. 96 [Mosquito Ridge Nat Forest Hwy.], Forest Hill unit Before construction. N/D '46 p29 Public Roads Administration engineers at work on rugged terrain. N/D '46 p37 Plumas Co. Rt. 70 [US 40-Alt.], Feather River Hwy. Section approaching Storrie Creek Br. Aug '37 C, p1 Aug '37 p5 Scenic section between Storrie Creek Br. and Rock Creek Br. Highway as seen from west portal of tunnel through Grizzly Dome. Aug '37 p5 Crowd of celebrants gathered at portal of Grizzly Dome to participate in dedication of Feather River highway. Aug '37 p7 Gov. Merriam, Director of PW Earl Lee Kelly, and Chief Winnemucca. Aug '37 p7 Feather River Hwy. soon after completion. May 38 p15 Completed surface in scenic region between Howells and Keddie. Aug '42 p12 Completed highway near Keddie. Aug '42 p13 Load of logs being hauled from mill on another section of new highway. Aug '42 p13 M/A '58 p8 Improved section west of Spring Garden. N/D '61 p52 Section of 2-lane expressway on Rt. 70 [US 40-Alt.]. Arch Rock section. M/J '50 p45 Failure of light surface road along Feather River north of Quincy due to storm and traffic conditions. Jan '40 p9 Sharp curve, narrow roadway, and narrow bridge make unsafe road. Jul '38 p1 US 395; Beckwourth Pass, old and new highway. S/O '53 p21 Section near Hallelujah Junction. S/O '53 p21 Western Pacific overpass on Beckwourth Pass. S/O '53 p55

R

ROUTES, Continued	
Riverside Co.	
Arlington-Mira Loma Expressway [FAS project].	M/J '55 p15+
I-10 [US 60-70-99, Leg. Rt. 26]	141/3 33 p13
Box Springs-Badlands-Beaumont unit	
Deep cut on new highway looking toward Gorgonia Range.	Aug '37 p17
Looking toward Beaumont with Mt. Jacinto in background.	Aug '37 p17
View of realigned highway west of Beaumont.	Aug '37 p17
Redlands-Beaumont unit	1148 0 / P1 /
Eliminating dangerous curves on I-10 [Rt. 26].	Mar '38 p8
Construction on stretch of highway between Redlands and Beaumont.	Mar '38 p9
Highway north of Beaumont looking towards Redlands.	Mar '38 p9
Grading operations in progress near Beaumont.	M/J '50 p24
Grading operations on Redlands-Beamont project.	M/J '50 p26
Calimesa, aerial view of proposed construction.	M/J '50 p23
Looking west at westerly intersection to Calimesa.	M/J '51 p24
Looking east through Calimesa after improvement.	M/J '51 p24
Looking east near Calimesa turnoff.	M/J '51 p25
Banning-Palm Springs Jct. unit	-
One-way channels separate Indio-Palm Springs traffic at junction point,	
and overhead carrying Palm Springs northbound traffic.	May '41 p9
Section of new one-way road bed.	May '41 p9
Spreading cement stabilized base.	May '41 p9, 12
Banning; freeway under construction.	S/O '56 p32
Former state highway (Ramsey St.) running parallel to new freeway.	S/O '56 p33
Completed freeway section through Banning.	J/F '57 p56
I-15; [Rt. 77, US 395; "Inland Route" Hwy.]	
Corona-Elsinore; old route washed out by flood waters in 1938; New highway.	
Grading operations for relocation in the Elsinore Mts.	J/F '49 p34
La Cadena freeway section between Riverside and Colton.	M/J '52 p4
Junction of old and new route just north of Temecula.	M/J '52 p2
Divided highway section between San Diego Co. line and Temecula.	M/J '52 p3
Blasting big cut between Antelope Rd. and Rt. 74.	M/J '52 p4
Section near Perris Blvd. Overcrossing.	J/F '54 p31
Intersection with Rt. 74 to Hemet.	J/F '54 p32
Perris Bypass at transition from two to four lanes.	J/F '54 p33
I-215 [US 395]	37/14 11
Palm lined section in Riverside.	N '42 p14
Pepper trees previously bordering old 2-lane road now in center dividing strip.	N '42 p15
Dual roadway sections through Riverside.	N '42 p15
View west showing island between traffic channels, grade separation.	N '42 p15
Pedley; Van Buren Blvd., four-lane [FAS] expressway.	N/D '60 p35
Rt. 60 [Mission Blvd., US 60]	T/A 446 22
Mira Loma-Riverside unit, drilling rock prior to excavating roadway cut.	J/A '46 p22
Mira Loma; texture of old pavement as it looked before resurfacing.	N/D '56 p49
Plant-mixed surfacing on highway near Mira Loma.	M/J '45 p11
Portable batch plant at Champagne Siding.	N/D '56 p49
Old sandbag subgrade, and raking old base course, ca. 1925. Road before resurfacing; Road after resurfacing.	N/D '56 p50
Road before resurracing, Road after resurracing.	N/D '56 p51

ROUTES Riverside Co., Continued

OUTES KIVEISIUC CO., COMMILUCU	
West Riverside unit, division strip island.	Apr '41 p6
Divided highway through West Riverside business district.	Apr '41 p6
Large palms and Eucalyptus trees conserved into division strip.	Apr '41 p7
W. Riverside at 4th St. looking northerly.	J/F '48 p4
At junction in W. Riverside.	J/F '48 p4
On Crestmore Rd. looking northerly toward spur track crossing.	J/F '48 p5
Looking northerly toward UP RR Crestmore branch grade crossing.	J/F '48 p5
Moreno Badlands section	1
Before/after views of new highway.	M/A '56 p22
Aerial view of new highway; Section of old road near summit.	M/A '56 p23
Camels leading cavalcade of Beaumont and Banning High School	
bands and parade of cars at dedication.	M/A '56 p24
Official party at ribbon-cutting ceremony.	M/A '56 p24
Construction through the "Badlands" west of Beaumont.	M/J '59 p34
Rt. 62; Dip on North Shore Rd. [Rt. 187].	F '39 p5
Rt. 71 relocated around Prado Dam and Flood Control Basin.	J/A '50 p51
Corona Fwy. crossing over Main St. in Elsinore.	N/D '58 p13
Rt. 74 [Rt. 64, "Palms to Pines Hwy."]	1., 2 copis
Palm Springs-Indio; grade curving to Coachella Valley desert floor.	N '40 p26
Scenes on "Palms to Pines" Hwy. from mountain to desert.	N '40 p27
Rt. 86 [US 99, Rt. 26]; Garnet-Thousand Palms unit	1
Oasis of Thousand Palms.	J/A '54 p56
Completed construction through Coachella Valley.	J/A '54 p57
Improved section showing traffic heading into San Gorgonio Pass.	J/A '54 p59
Rt. 91 [Rt. 43; Rt. 18-91]	•
Colton-Riverside divided highway. N '39 p11;	F '40 p25
Dividing strip in transition between locations where highways are	
on different levels; Close-up of two different level sections.	37/20 11
on different levels, close up of two different level sections.	N '39 p11
Corona Bypass	N '39 p11
	J/A '61 p27
Corona Bypass	-
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd.	J/A '61 p27
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead.	J/A '61 p27 J/A '61 p29
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914.	J/A '61 p27 J/A '61 p29 J/A '61 p30
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona.	J/A '61 p27 J/A '61 p29 J/A '61 p30
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy.	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy. Planned route of third unit of Riverside Fwy. Construction at south end of second unit at Arlington Ave.	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19 S/O '57 p2
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy. Planned route of third unit of Riverside Fwy.	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19 S/O '57 p2 S/O '57 p2 S/O '57 p2
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy. Planned route of third unit of Riverside Fwy. Construction at south end of second unit at Arlington Ave. Construction underway through city of Riverside. Looking north along Riverside Fwy. from Bridge St. Overcrossing.	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy. Planned route of third unit of Riverside Fwy. Construction at south end of second unit at Arlington Ave. Construction underway through city of Riverside. Looking north along Riverside Fwy. from Bridge St. Overcrossing. Looking north along Riverside Fwy from above 8th St.	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy. Planned route of third unit of Riverside Fwy. Construction at south end of second unit at Arlington Ave. Construction underway through city of Riverside. Looking north along Riverside Fwy. from Bridge St. Overcrossing. Looking north along Riverside Fwy from above 8th St. Future route of Riverside Fwy. extension through Grand Terrace area.	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy. Planned route of third unit of Riverside Fwy. Construction at south end of second unit at Arlington Ave. Construction underway through city of Riverside. Looking north along Riverside Fwy. from Bridge St. Overcrossing. Looking north along Riverside Fwy from above 8th St. Future route of Riverside Fwy. extension through Grand Terrace area. Completed sections through city of Riverside.	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19 S/O '57 p2 S/O '57 p6
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy. Planned route of third unit of Riverside Fwy. Construction at south end of second unit at Arlington Ave. Construction underway through city of Riverside. Looking north along Riverside Fwy. from Bridge St. Overcrossing. Looking north along Riverside Fwy from above 8th St. Future route of Riverside Fwy. extension through Grand Terrace area.	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19 S/O '57 p2 S/O '57 p6 J/F '58 p8
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy. Planned route of third unit of Riverside Fwy. Construction at south end of second unit at Arlington Ave. Construction underway through city of Riverside. Looking north along Riverside Fwy. from Bridge St. Overcrossing. Looking north along Riverside Fwy from above 8th St. Future route of Riverside Fwy. extension through Grand Terrace area. Completed sections through city of Riverside. Riverside Fwy. near Brookhurst Ave.	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19 S/O '57 p2 S/O '57 p6
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy. Planned route of third unit of Riverside Fwy. Construction at south end of second unit at Arlington Ave. Construction underway through city of Riverside. Looking north along Riverside Fwy. from Bridge St. Overcrossing. Looking north along Riverside Fwy from above 8th St. Future route of Riverside Fwy. extension through Grand Terrace area. Completed sections through city of Riverside. Riverside Fwy. near Brookhurst Ave. Southern terminus of Riverside Fwy. at Arlington Ave. in Riverside.	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p6 J/F '58 p8 N/D '58 p16
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy. Planned route of third unit of Riverside Fwy. Construction at south end of second unit at Arlington Ave. Construction underway through city of Riverside. Looking north along Riverside Fwy. from Bridge St. Overcrossing. Looking north along Riverside Fwy from above 8th St. Future route of Riverside Fwy. extension through Grand Terrace area. Completed sections through city of Riverside. Riverside Fwy. near Brookhurst Ave. Southern terminus of Riverside Fwy. at Arlington Ave. in Riverside. Section of completed Riverside Fwy. through city of Riverside.	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19 S/O '57 p2 S/O '57 p6 J/F '58 p8 N/D '58 p16 N/D '58 p13
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy. Planned route of third unit of Riverside Fwy. Construction at south end of second unit at Arlington Ave. Construction underway through city of Riverside. Looking north along Riverside Fwy. from Bridge St. Overcrossing. Looking north along Riverside Fwy from above 8th St. Future route of Riverside Fwy. extension through Grand Terrace area. Completed sections through city of Riverside. Riverside Fwy. near Brookhurst Ave. Southern terminus of Riverside Fwy. at Arlington Ave. in Riverside. Section of completed Riverside Fwy. through city of Riverside. Construction at north end of "Missing Link" section.	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19 S/O '57 p2 S/O '57 p6 J/F '58 p8 N/D '58 p16 N/D '58 p13 M/J '59 p28
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy. Planned route of third unit of Riverside Fwy. Construction at south end of second unit at Arlington Ave. Construction underway through city of Riverside. Looking north along Riverside Fwy. from Bridge St. Overcrossing. Looking north along Riverside Fwy from above 8th St. Future route of Riverside Fwy. extension through Grand Terrace area. Completed sections through city of Riverside. Riverside Fwy. near Brookhurst Ave. Southern terminus of Riverside Fwy. at Arlington Ave. in Riverside. Section of completed Riverside Fwy. through city of Riverside. Construction at north end of "Missing Link" section. Work on south end of "Missing Link" section near Riverside.	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p6 J/F '58 p8 N/D '58 p16 N/D '58 p13 M/J '59 p28 M/J '59 p32
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy. Planned route of third unit of Riverside Fwy. Construction at south end of second unit at Arlington Ave. Construction underway through city of Riverside. Looking north along Riverside Fwy. from Bridge St. Overcrossing. Looking north along Riverside Fwy from above 8th St. Future route of Riverside Fwy. extension through Grand Terrace area. Completed sections through city of Riverside. Riverside Fwy. near Brookhurst Ave. Southern terminus of Riverside Fwy. at Arlington Ave. in Riverside. Section of completed Riverside Fwy. through city of Riverside. Construction at north end of "Missing Link" section. Work on south end of "Missing Link" section near Riverside. Transplanted palm trees along 9th St. on-ramp leading to freeway.	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p6 J/F '58 p8 N/D '58 p16 N/D '58 p13 M/J '59 p28 M/J '59 p32 M/J '59 p35
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy. Planned route of third unit of Riverside Fwy. Construction at south end of second unit at Arlington Ave. Construction underway through city of Riverside. Looking north along Riverside Fwy. from Bridge St. Overcrossing. Looking north along Riverside Fwy from above 8th St. Future route of Riverside Fwy. extension through Grand Terrace area. Completed sections through city of Riverside. Riverside Fwy. near Brookhurst Ave. Southern terminus of Riverside Fwy. at Arlington Ave. in Riverside. Section of completed Riverside Fwy. through city of Riverside. Construction at north end of "Missing Link" section. Work on south end of "Missing Link" section near Riverside. Transplanted palm trees along 9th St. on-ramp leading to freeway. Transplanted palms along freeway near 7th St.	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p6 J/F '58 p8 N/D '58 p16 N/D '58 p13 M/J '59 p28 M/J '59 p32 M/J '59 p35
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy. Planned route of third unit of Riverside Fwy. Construction at south end of second unit at Arlington Ave. Construction underway through city of Riverside. Looking north along Riverside Fwy. from Bridge St. Overcrossing. Looking north along Riverside Fwy from above 8th St. Future route of Riverside Fwy. extension through Grand Terrace area. Completed sections through city of Riverside. Riverside Fwy. near Brookhurst Ave. Southern terminus of Riverside Fwy. at Arlington Ave. in Riverside. Section of completed Riverside Fwy. through city of Riverside. Construction at north end of "Missing Link" section. Work on south end of "Missing Link" section near Riverside. Transplanted palm trees along 9th St. on-ramp leading to freeway. Transplanted palms along freeway near 7th St. Santa Ana Canyon Hwy. [Mountain-to-Sea Hwy.]	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p6 J/F '58 p8 N/D '58 p16 N/D '58 p13 M/J '59 p28 M/J '59 p35 M/J '59 p36
Corona Bypass Grand Blvd. Undercrossing over historic Grand Blvd. Section through Corona near Temescal Wash Br. and Overhead. Lineup for Corona Rd. Race on Grand Blvd., 1914. Completed section of Riverside Fwy near Corona. Riverside Fwy. Planned route of third unit of Riverside Fwy. Construction at south end of second unit at Arlington Ave. Construction underway through city of Riverside. Looking north along Riverside Fwy. from Bridge St. Overcrossing. Looking north along Riverside Fwy from above 8th St. Future route of Riverside Fwy. extension through Grand Terrace area. Completed sections through city of Riverside. Riverside Fwy. near Brookhurst Ave. Southern terminus of Riverside Fwy. at Arlington Ave. in Riverside. Section of completed Riverside Fwy. through city of Riverside. Construction at north end of "Missing Link" section. Work on south end of "Missing Link" section near Riverside. Transplanted palm trees along 9th St. on-ramp leading to freeway. Transplanted palms along freeway near 7th St. Santa Ana Canyon Hwy. [Mountain-to-Sea Hwy.] Section located high above the Santa Ana River.	J/A '61 p27 J/A '61 p29 J/A '61 p30 N/D '61 p19 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p2 S/O '57 p6 J/F '58 p8 N/D '58 p16 N/D '58 p13 M/J '59 p28 M/J '59 p35 M/J '59 p36

ROUTES, ContinuedRt. 111

Rt. 111	
Palm Springs-Rt. 86 [US 99] unit	
Highway looking toward San Jacinto Mt. en route to Palm Springs.	Mar '40 p11
View at southeast end of project where road crosses Snow Creek.	Mar '40 p11
Palm Desert as seen from Rt. 111/Rt. 74 intersection looking eastward.	M/J '59 p3
Section through desert country west of Indio.	M/J '59 p8
Section of highway west of Indio.	Jul '37 p11
Sacramento Co.	
Aerial view of Sacramento showing future I-80, I-80-Rt. 99, and I-5 routes.	S/O '64 p32
Bus-80; North Sacramento Fwy. [US 40; Ben Ali-Roseville Fwy.]	
Construction on North Sacramento Freeway project.	S/O '46 p15
Approach to state Capitol on I-80 [US 40] and Rt. 65 [US 99E].	S/O '50 p105
George T. McCoy with Selden Menefee, Pres. Greater N. Area Chamber of	
Commerce, and State Sen. Harold T. Johnson at dedication.	M/J '56 p29
Lt. Gov. Harold J. Powers applies torch to "golden" chain.	M/J '56 p30
Auto caravans head for Sacramento and Roseville after dedication ceremony.	M/J '56 p29
Directional sign with upper and lower case letters.	M/J '56 p31
Traffic on Auburn Blvd. before freeway opening.	M/J '56 p31
N. Sacramento Fwy., in operation since 1948.	M/A '56 p43
Suburban freeway near Sacramento.	J/A '64 p50
Bus-80; Elvas Fwy.	
Aerial view of Elvas Fwy.	N/D '54 p15+
Elvas Fwy showing A St. Overcrossing and floodgates. N/D '54 p18;	
Gov. Goodwin J. Knight at Elvas Fwy. dedication.	M/J '55 p10
H. Stephen Chase (CHC) at dedication.	M/J '55 p10
Elvas Fwy. viewed from interchange at Arden Way.	M/J '55 p11
Arden Way off-ramp on Elvas Fwy.	S/O '55 p14
Del Paso Blvd. [US 40] between Sacramento and North Sacramento.	F '41 p20
Dillard Rd near Rt. 16 junction.	M/A '65 p76
Dillard Rd. reconstruction approaching new bridge over Cosumnes Rvr.	M/A '65 p77
Mud road in Sacramento Co., 1911.	M/J '52p47
Folsom Blvd. [US 50]	
Realignment east of Folsom.	Aug '41 p15
Folsom Bypass on new alignment, showing highway through dredger tailings.	N/D '49 p35
Divided highway in vicinity of Alder Creek crossing.	N/D '49 p35
Section of highway showing 8,000-ft. tangent alignment.	N/D '49 p35
Lumbering roller breaks through road barrier at ceremonies opening widened	N/D (57, 20
section near Perkins.	N/D '57 p20
Four-lane improvement between Sacramento and Alder Creek.	J/A '58 p5
Improvement at Nimbus intersection.	J/A '59 p28
Watt Ave.; looking north up Watt Ave. prior to construction of extension.	S/O '61 p25
Completed Watt Ave. Br. and freeway section looking south.	S/O '61 p25
I-80; 29th-30th St. section under construction.	N/D '64 p17
Road between Hood and Franklin before first highway bond issue	S/O '50 = 76
Same section of road improved after successful bond issue campaign. Rt. 99 [US 50-99]	S/O '50 p76
Galt; new 22-ft. pavement with provision for 4-lane divided highway.	O '38 p15
Old "S" curve through business section past high school.	O '38 p15
S. Sacramento Fwy looking north toward downtown area.	J/F '62 p17
S Sacramento Fwy. during construction.	J/F '62 p18
Stockton Blvd. [US 50-99] at Fruitridge Rd. intersection showing late	T-17-12-
afternoon traffic before opening of S. Sacramento Fwy.	J/F '62 p16

ROUTES, Continued

KOO I ES, Continued	
San Benito Co.	
US 101 realignment under construction at Pajaro River crossing.	Aug '41 p18
Rt. 25 [Rt. 119]; Pinnacles Hwy., Tres Pinos-Paicines unit	
Section of new highway between Paicines and Tres Pines on route to	
Pinnacles National Monument.	Aug '38 p10+
Official group at ribbon cutting ceremonies.	Aug '38 p11
Rt. 156, San Juan Bautista Bypass.	N/D '61 p66
State highway typical of those made possible by first bond issue. S/O '50 p98;	J/A 32 p43
San Bernadino Co.	7/2/10 01
Archibald Ave., rural scene on improved route.	J/F '49 p31
Carbon Canyon Rd.	Jan '39 p7
City Creek Hwy. [City Creek Rd. alt. highway]See also EROSION CONTROL	
Etiwanda Ave under construction.	J/F '49 p32
Mail boxes attest to rural character of East 5th St.	J/F '49 p32
Bin-type retaining walls under construction.	M/A '48 p15
Section of improved City Creek Road at Boulder Ave. intersection.	M/A '48 p16
Grading operations on second unit of City Creek Rd. improvement.	M/A '48 p14
Aerial view of City Creek Rd. looking down toward Dutch John's Flat.	M/A '48 p16
Embankment construction on City Creek Rd.	J/F '47 p17
Erosion protection features on embankment construction.	J/F '47 p18
Sidehill excavation work.	J/F '47 p18
Lieut. Gov. Goodwin J. Knight and official party at ribbon-cutting ceremony.	S/O '51 p35
Spectators, car parade, at dedication in Running Springs.	S/O '51 p53
View of City Creek Hwy. looking toward San Bernadino.	S/O '51 p52
Intersection of City Creek Hwy. and Rt. 18 [Rt. 43].	S/O '51 p52
8th St. in Colton passing under San Bernadino Fwy.	N/D '58 p14
Highland Ave. (Rt. 30) [Rt. 190], dips in San Bernardino section.	Jan '39 p1
I-10 [US 60-70-99; Los Angeles-Imperial Valley Hwy.]	•
Colton-Redlands unit; improved section of highway near Colton.	Aug '37 p15
New road pictured on left at junction of highway to San Bernadino.	Aug '37 p15
Redlands unit [Rt. 99]	1145 37 P13
Proposed improvement of east approach to Redlands.	May '38 p19
Proposed project showing planned changes.	May '38 p19
East city limits project showing old rough road and new	
4-lane highway construction.	J/A '46 p22
Hazardous curve at bottom of long steep grade, now eliminated.	J/A '46 p22
Freeway relocation looking easterly from city of Redlands.	M/A '47 p10
Fern St. channelization at grade, new alignment in background.	M/A '47 p11
Typical revision of existing modern 2-lane highway to 4-lane highway.	M/A '47 p11
Redlands-Crystal Springs Canyon unit	•
Four-lane divided highway under construction east of Redlands.	S '42 p5
Where divided highway merges into 2-lane existing highway.	S '42 p5
Spreading cement-treated base material with self propelled	5 72 p3
	0 40 =5
mechanical spreading machine.	S '42 p5
Section of improved alignment through Reservoir Canyon.	Jan '39 p15
Same, showing old route at right.	Jan '39 p15
Grading for section of 4-lane divided highway project near Redlands.	D '40 p9

ROUTES San Bernardino Co., Continued

OO LES San Bernardino Co., Continued	
San Bernardino Fwy.	
Concrete paving operations on Ontario-Colton unit.	J/A '46 p20
Section west of Etiwanda Ave. showing heavy mixed truck and	
passenger traffic on freeway.	J/A '48 p7
Looking toward Ontario through Guasti vineyards.	M/A '53 p18
Completed section near Archibald Ave.	N/D '54 p10
View easterly along San Bernadino Ave.	N/D '54 p10
Lt. Gov. Harold J. Powers cuts ribbon officially opening freeway	
through Colton.	M/A '57 p22
Looking east along San Bernadino Fwy. through Colton.	
Traffic at intersection of 8th and I St. in Colton, before.	M/A '57 p64
Traffic at same intersection after freeway construction.	M/A '57 p64
Looking east above San Bernadino Fwy. through Colton.	M/A '57 p65
Completed section south of San Bernadino.	M/J '59 p33
Completed section looking north from vicinity of Highland Ave.	M/J '59 p33
Looking north from 16th St. Interchange.	M/A '60 p4+
Southward view from 16th St. Interchange.	M/A '60 p6
North portion of freeway.	M/A '60 p7
I-15 [National Old Trails Hwy.; Arrowhead Trail; Mormon Trail]	
Baker Bypass section in Mojave Desert between Barstow and Nevada.	N/D '64 p6
I-15/I-40 junction.	S/O '65 p15
Agricultural inspection stop near Yermo.	S/O '65 p16
Section of I-15 through desert terrain. N/D '66p23	
Baker Grade unit [US 91-466]	
Baker Grade near Halloran Summit Overcrossing.	S/O '61 p2
Rest area off-ramp on east of Baker; Aerial view of rest area.	S/O '61 p4
Section of "parallel lines" across desert.	S/O '61 p5
Section near Mojave River crossing to Barstow.	S/O '61 p58
Cajon Pass Hwy. [US 395]	
Section showing contractor's aggregate production plant.	M/J '53 p8
Section of completed construction.	M/J '53 p9
Construction one mile south of Cajon Station.	M/J '53 p9
Truck scale installation adjacent to Blue Cut.	M/J '53 p9
View across E. Fork of Cajon Creek (Horse Thief Canyon)	
showing retaining wall under construction.	M/J '53 p10
Construction operations at Blue Cut.	M/J '53 p10
Gish Underpass as widened to 4-lane divided roadway.	N/D '55 p27
Approaching Cajon Pass from the south; Summit of Cajon Pass.	N/D '55 p27
Construction south of Cajon Pass Summit.	N/D '55 p27
Construction progress on [US 66-91-395] near Highland Ave. (Rt. 30)	N/D '58 p16
History/origin of route	
Fordson tractors towing grader during construction in 1924.	S/O '65 p17
Unsurfaced Arrowhead Trail west of Cronese Dry Lake in 1927.	S/O '65 p17
Improved section of Arrowhead Trail ca. late 1920s.	S/O '65 p17
Construction near Cajon Summit in 1930.	S/O '65 p17
Road excavation by mule-drawn Fresnos.	S/O '65 p17
Mountain Pass-Las Vegas Hwy. unit [US 91-466] before/after realignment.	Aug '37 p25
Aerial photo of completed highway through Mt. Pass.	Aug '37 p25

OUTES San Bernardino Co., Continued	
Victorville-Barstow expressway [US 66-91]	
Grading underway at south end of project near Stoddard-Wells Rd.	S/O '57 p1
Construction underway at north end of Victorville bypass.	S/O '57 p1
Construction at Victorville Overhead and Mojave River Br.	S/O '57 p1
Construction underway at Mill St. to 6th St., San Bernadino.	S/O '57 p3
Construction progress looking north from above Rialto Ave.	S/O '57 p3
View of construction progress from above 5th St.	S/O '57 p3
Right-of-way clearance operation east of I St.	S/O '57 p3
Highland Ave. showing graded area for interchange ramps.	S/O '57 p3
Construction at junction of Riverside and San Bernadino Fwy.	S/O '57 p5
Looking northwest toward entrance to Cajon Pass near Highland Ave.	S/O '57 p5
Looking northwest from Highland Ave. separation.	S/O '57 p5
Trucks waiting in line on Victorville-Barstow job.	S/O '58 p46
Trucks being loaded at Wild Wash base material plant.	S/O '58 p46
Self-propelled mixer laying cement-treated base along expressway.	S/O '58 p47
Northern end of Victorville-Barstow expressway under construction.	N/D '58 p11
Aerial view of Barstow showing construction in distance.	N/D '58 p15
Section of Victorville-Barstow expressway under construction.	J/F '59 p59
Official party at ribbon-cutting for Victorville-Barstow expressway.	J/F '59 p61
Barstow; Main and First Streets, junction of I-40/I-15 [US 66-91]	S/O '61 p57
Junction of I-40/I-15 [US 66-91] on new freeway.	S/O '61 p57+
Mojave Rvr. at Barstow during the storm of March, 1938.	S/O '61 p59
I-40 [US 66]	or or pro
Official part at ribbon-cutting ceremony, opening section south of Needles.	J/F '58 p57
Improved section through Needles.	M/J '61 p56+
Pigeon Pass Rd. [Barton Rd.] from Benton Ave.	J/F '50 p43
View from Terracino Ave., El Camino Real marker in background.	J/F '50 p43
Old road through Pigeon Pass; New, relocated highway.	J/F '50 p44
Construction scene on Pigeon Pass Road.	J/F '50 p45
Widening operations at intersection of Waterman Ave. necessitated	1
additional cover on Gage Canal.	J/F '50 p45
Riverside Ave. [FAS 707] after widening.	J/F '61 p55
Rt. 2-138 west of Cajon.	M/J '59 p30
Rt. 18 [Rim of the World Hwy.]	1
Victorville Hwy. as seen from Rocky Hills summit.	S/O '47 p20
Portion of Victorville Hwy. near "The Narrows."	S/O '47 p21
Victorville Hwy. seen through gap in Rocky Hills.	S/O '47 p21
Rt. 18-30 between Snow Valley and Big Bear Lake.	N/D '58 p47
Rt. 38 [Big Bear Loop Hwy.]	1
Opening ceremonies for new section at Onyx Summit.	S/O '61 p15
Paving plant in operation during construction.	S/O '61 p16
Highway and surrounding country shortly before opening to public.	S/O '61 p16
Traffic passing over new section following opening ceremonies.	S/O '61 p17
Rt. 62; Morongo Canyon Fwy. section.	M/A '64 p7+
Safety rest area and fountain along freeway.	M/A '64 p7
Approaching safety rest area in middle of canyon.	M/A '64 p9
Aerial view looking southeast down canyon.	M/A '64 p9
Rt. 66 (Foothill Blvd.) [Rt. 9]	1
Section west of Sierra Way before widening.	S '37 p7
Artists conception of how this section will look after improvement.	S '37 p7
New 4-lane link of Foothill Blvd.	Jul '38 p17
Gov. Merriam at ribbon cutting ceremony.	Jul '38 p17
Ç ,	1

ROUTES San Bernardino Co., Continued Rt. 71; Corona Fwy. under construction near Pine Ave. south of Chino. M/J '59 p28 Prado Dam Hwy.--See Riverside Co. Rt. 178; Salt Wells Canyon Rd. [Rt. 212], roadmixed surfacing near Salt Wells. M/J '51 p34 US 395 Sharp turn on unimproved Mojave Desert section at Adelanto. M/J '52 p2 Winding grade near Cajon Pass summit leading to Lake Arrowhead. Jan '39 p1 Cajon Pass unit under construction. M/J '52 p6 Construction at Cleghorn Creek showing upper and lower bridges. M/J '52 p5 Washington St.-Barton Rd. [FAS Rt. 714] after widening. J/F '61 p55+; N/D '61 p44 Winding, narrow dirt road between Camp Seeley and Cedar Springs. Jan '39 p7 San Diego Co. Alvarado Canyon FAS job; La Mesa at Jackson St. intersection. N/D '55 p1 Buena Vista Lagoon, removing unsuitable material at. M/J '53 p12 Del Dios Hwy. [FAS Rt. 728] reconstruction near Lake Hodges Dam. M/J '59 p22+ Douglas St. extension before/after slope was filled in to make grade. Jul '39 p20 Douglas St. extension, San Diego. S/O '44 p3; M/A '46 p10 M/A '45 p22 Douglas St. extension near India St. utilizing unimproved canyon. El Cajon Blvd. in San Diego, 1937. F '38 p20 Fairmont Blvd., San Diego showing construction on Aldine Dr. Undercrossing. J/A '60 p51 I-5 [US 101, Pacific Hwy.] Access road projects Pacific Hwy.-Washington St. route before grading operations. S/O '44 p3 Harbor Dr. South, near 28th St. S/O '44 p3 S/O '44 p3 New Pacific Hwy. N/D '65 p11 Cardiff-by-the-Sea section between Del Mar and Encinitas. Encinitas; section through poinsettia-growing area. J/A '66 p23 Freeway "Y" looking south at city of Oceanside. S/O '59 p4 Leucadia section. O '37 p9 Type of 4-lane divided highway used on route through Leucadia, showing landscaping of center strip. N '37 p4 Steel guard railings, and trees left standing on highway widening. S/O '53 p52 Leucadia vicinity indicating future route of Coastal freeway. N/D '58 p36 Oceanside-San Onofre unit Section over Santa Fe tracks near San Onofre nearing completion. O '37 p7 Bad curve through underpass, and new highway under construction. O '37 p7 Looking south from new Santa Margarita River Br. showing new 40-ft. asphalt-concrete pavement O '37 p7 Gov. Merriam and motion picture star Leo Carrillo at dedication. Apr '38 p18 Group at "Wedding of the counties [San Diego-Orange]" ceremony at dedication of new highway. Apr '38 p20 Ample separation strips on 4-lane section of realignment render head-on collisions practically impossible. Apr '38 p19 View of 4-lane divided highway section on new alignment. Apr '38 p19 Oceanside-San Clemente unit 6-ft. separation by means of double stripe north of Flores. M/J '47 p4 Weather Station, Santa Margarita Valley with lanes separated by curbs. M/J '47 p4 Rose Canyon improvement Elvira Station showing new divided highway with safety features. D '38 p15 Curbing of center dividing strip with reflective paint for added safety. D '38 p15 New divided highway through Mission Bay Park area showing recessed paneled curb of parting strip. D '38 p16 Rose Canyon section two miles north of Balboa Ave. N/D '58 p38

ROUTES San Diego Co., Continued	
San Mateo Creek Valley, realignment for southbound traffic across	M/J '46 p24
	M/J '46 p23
San Luis Rey BrAliso Creek unit, grading operations.	
I-5 [US 101] through San Diego in vicinity of Washington St.	N/D '58 p39
Dist. Engineer Jacob Dekema riding shotgun on Wells Fargo stagecoach	T/A 666 16
in celebration of opening of 25-mile unit.	J/A '66 p16
I-5; Montgomery Fwy. [US 101]	3.5/5/55 60
International border station at Tijuana, looking north on freeway.	M/J '55 p20
South end of freeway with San Ysidro in U.S., Tijuana in Mexico on right.	M/J '55 p20
Traffic on freeway at 18th St. Undercrossing.	M/J '55 p21
Section near Main St. interchange.	M/J '55 p22
Approaching freeway from N. 8th St. intersection in National City.	M/J '55 p22
Official speakers and party at Montgomery Fwy. dedication.	S/O '55 p46
Beginning US 101 and Montgomery Fwy. at Mexican border.	N/D '55 p5
I-5; Oceanside-Carlsbad Fwy. [US 101]	
Construction on north end near Hill St. Overcrossing.	N/D '51 p30
Construction near old bridge over San Luis Rey River.	N/D '51 p30
Construction at Mission Ave. separation.	N/D '51 p32
Traffic congestion Hill St. in Oceanside prior to freeway opening.	N/D '53 p16
New and old routes of freeway through Oceanside.	N/D '53 p17
Freeway through Oceanside near Vista Way grade separation.	N/D '53 p18
Oceanside-Carlsbad Fwy, near Brooks St. overcrossing.	N/D '53 p19
Freeway through Carlsbad near Tamarack overcrossing.	N/D '53 p20
Scene at dedication.	N/D '53 p21
Section of Oceanside-Carlsbad Fwy. looking south.	J/A '54 p1
I-5; San Diego Fwy.	3/11 34 p1
Adopted line of San Diego Fwy from above 27th St. and National Ave.	N/D '58 p36
Cleared areas for San Diego Fwy. construction in downtown San Diego.	S/O '60 p13
San Diego Fwy at 4-level I-5/Rt. 163 [US 395] interchange.	J/A '64 p2+
	J/A '64 p2+
Section through San Diego's business district.	J/A 64 p5+
Section through San Diego's business district, showing Balboa Park	T/A 564 4
and I-5/Rt. 163 [US 395] interchange.	J/A '64 p4
Old Pacific Hwy. near Ash St. ca. 1940s.	J/A '64 p5
Rt. 67 in Grossmont Summit section just south of I-8 [US 80].	J/A '60 p4
I-8 [US 80]	0/0/51 01
Alpine; grading and paving operations on section of I-8 [US 80].	S/O '51 p21
Balboa Ave. in San Diego, looking northeast.	M/J '59 p5
Eight-lane expressway section in San Diego at El Cabrillo Overcrossing.	M/J '61 p23
El Cajon unit, ribbon-cutting ceremony for.	S/O '61 p64
Grossmont Summit section of new freeway.	S/O '61 p65
Fill section in El Cajon residential area.	S/O '61 p67
Section near Grossmont Blvd. separation and pedestrian overcrossing.	N/D '58 p 39
Looking toward El Cajon at connection with Bus-80.	S/O '65 p40
Section approaching Los Coches Rd. undercrossing.	S/O '65 p40
La Mesa-El Cajon unit	
Divided highway, showing traffic separations using reflectorized	
curbs, profile separations and channelized islands.	S '41 p21
Alvarado Canyon Rd. looking easterly toward La Mesa.	M/A '50 p44
Section requiring heavy excavation, looking westward from La Mesa.	M/A '50 p45
View northwesterly along project near junction with El Cajon Ave.	M/A '50 p45
Looking east on section near La Mesa.	J/F '58 p55
Construction in progress near Lake Murray Blvd. Overcrossing.	J/F '58 p55
Construction near I-8/Rt. 67 [US 80/Rt. 67] interchange.	J/F '58 p55
ROUTES San Diego Co., Continued	-
,	

Mission Vallay Pd	
Mission Valley Rd. Improved section of near Rt. 163 [US 395] Interchange.	J/A '60 p6
Poorly aligned section with steep grade and narrow pavement	F '39 p5
At Morena St. intersection, widened and channelized.	N/D '43 p3
Morena BlvdTaylor St. section	M/J '61 p24
Mountain Springs Grade; realigned section ascending In-ko-pah Mt.	Jan '40 p27
Grading completed through cut; Heavy grading and drilling scenes.	Apr '41 p21
Existing road showing extreme curvature.	Apr '41 p21
Devil's Canyon section after improvement.	J/F '64 p46
Modern carbide insert drill bit with two types from older project.	J/F '64 p46
Torrey Pines-La Mesa section.	O '37 p9
Section of highway which replaced Torrey Pines Grade.	S/O '45 p9
Walker Canyon; Boulevard-Imperial Co. line unit	5/О 43 р
Wagon drills preparing powder holes for blasting to cut through rocks.	J/A '66 p10
Structural plate pipe used for culvert on job.	J/A '66 p10
Survey Party Chief setting slope stakes in rock.	J/A '66 p11
I-15 [US 395]	3/A 00 p11
San Diego-Miramar/Miramar-Lake Hodges units before opening of new route.	N/D '50 p17
Sections of new route, looking north.	N/D '50 p17
Looking north from Linda Vista Road.	N/D '50 p19
Wahbash Blvd. [Rt. 283] at interchange with improved Rt. 94.	J/A '60 p27
Murphy Canyon Rd. near junction with I-8 [US 80].	J/A '60 p27
Looking south along Murphy Canyon Rd. and Ward Rd.	J/A '60 p28
Mountain Pass; improved section near Bailey Rd. Overcrossing.	J/F '64 p54
Wheaton Canyon section; Nipton Rd Overcrossing section.	J/F '64 p54
Snow surrounding Joshua trees at summit before construction.	J/F '64 p55
Same section after improvement showing Bailey Rd. Overcrossing.	J/F '64 p55
Two-lane section near Poway Rd before construction.	M/A '65 p65
Old route north of Escondido.	M/A '65 p65
East face on Big Cut showing 100,000-cubic yard slide	M/A '65 p66
Section of improved I-5 freeway.	S/O '65 p13
Mirimar Road access improvement near US 101.	S/O '44 p3
Mission Gorge Rd. realignment, section of old road.	M/J '65 p18
Rock cut and embankment involved in reconstruction.	M/J '65 p19
Mission Valley RdSee I-8	141/3 03 p1/
Mt. Palomar Hwy. [Palomar Observatory Rd; "Highway to the Stars"]	
Powder blast breaks down last obstruction on Palomar Mt. road.	Jan '37 p17
Graders opening last cut on highway to Palomar summit.	Jan '37 p17
Looking toward observatory site, and steel structure for telescope.	Jan '37 p17
Steel structure being erected which will support telescope of world's	3411 37 p17
largest observatory.	Jan '37 p17
Huge rotating dome of Palomar observatory for 200 inch telescope.	S '39 p8
Transporting telescope parts over state highway to Palomar Mt.	S '39 p9
Telescope horseshoe and large girder on mountain grade.	S '39 p9
Large telescope part being moved on 4-axle low bed trailer.	S '39 p9
Section of new highway on Palomar Mt. grade.	S '39 p10
County road to observatory site before rebuilding.	S '39 p10
Section of Mt. Palomar Hwy.	N/D '45 p6
Poway Rd. widening project north of San Diego.	N/D '64 p39
Rosecrans Blvd. after improvement; Old highway before improvement.	Jul '40 p11
Rosecrans-Mission Valley divided highway	N/D '43 p3
resectans mission varies divided ingliviay	TUD TO PO

ROUTES San Diego Co., Continued

OUT	ES San Diego Co., Continued	
Rt.	75	
	Fred W. Spears (CHC) dedicating Palm City-Coronado section.	M/J '55 p38
	Southern end of Silver Strand on Palm Ave. prior to construction.	M/J '56 p21
	Looking toward Coronado, new southbound lanes under construction.	M/J '56 p22
	Northerly end of Strand before construction.	M/J '56 p22
	Rt. 75/I-5 [US 101] junction in Palm City.	M/J '56 p23
	Silver Strand during construction near Silver Strand State Park.	M/J '56 p24
	North end of Silver Strand approaching Coronado Hotel.	M/J '56 p24
Rt.	76 [Rt. 195] near Oceanside with poor alignment and blind curves.	F '39 p4
Rt.	78 [Leg. Rt. 198, Lakeside-Ramona road]	•
	Relocated highway around San Vicente Dam.	J/F '44 p15
	San Vicente Dam under construction across highway showing hole	•
	left for traffic during road relocation.	J/F '44 p14
	Section between Oceanside and Vista.	N/D '55 p3
	Section east of Ramona with poor alignment and narrow pavement.	F '39 p5
	Section near Mar Vista Overcrossing.	J/F '65 p53
	Section near Encinitas Rd. undercrossing.	J/F '65 p54
Rt.	94-67 (San Diego-La Mesa)	•
	Flooded "dip" on Rt. 94.	F '39 p5
	Rt. 163 [US 395], dangerous curves on.	F '39 p3
	Rt. 94/Rt. 67 junction near Panorama Dr.	J/A '57 p46
	Rt. 67 near Mariposa St. overcrossing.	J/A '57 p46
	Rt. 94 construction near Wabash Blvd. interchange.	M/J '59 p45
	Section under construction near College Ave. undercrossing.	J/A '57 p47
	Construction underway on Nimitz Ave. near Mission Bay Park.	M/J '59 p5+
	A narrow road with poor alignment and hazards caused by inadequate slope.	F '39 p4
Rt.	163; Cabrillo Fwy. [US 395]	
	San Diego Mayor Harley Knox breaking ground for Cabrillo Fwy.	M/A '46 p5
	Cabrillo Fwy traverses 11th Ave. Canyon through Balboa Park.	M/A '46 p6
	Beginning grade operations on Cabrillo Fwy.	M/A '46 p6
	Aerial view of Cabrillo Fwy. under construction.	N/D '46 p18
	Grading operations near University Ave.	N/D '46 p42
	Grading operations on first big cut north of San Diego River.	N/D '46 p42
	Construction looking north toward Washington St. Bridge.	N/D '46 p42
	Construction looking west from Pascoe St. ramp toward Cabrillo Fwy.	N/D '46 p42
	Construction near Mission Valley showing interchange and San Diego Rvr.	J/A '47 p3
	Looking toward Pascoe St., Washington St., and University Ave. bridges.	J/A '47 p4
	View south from Laurel St. Br.	J/A '47 p4
	Aerial view of project and environs.	J/A '47 p5
	Looking south across Mission Valley.	J/A '47 p6
	Concrete paving operations through Linda Vista.	J/A '47 p6
	Cabrillo Fwy during and after construction.	M/A '48 p1
	Aerial view of Cabrillo Fwy. traversing Hillcrest District.	M/A '48 p2
	Looking north across interchange connecting with Mission Valley Rd.	M/A '48 p3
	Looking south toward Pascoe St. and Washington St.	M/A '48 p4
	Ribbon cutting ceremony at dedications of Cabrillo Fwy.	M/A '48 p5
	Section of freeway through Balboa Park. M/A '48 p4;	J/A '55 p10
	Section looking northerly toward Mission Valley. (I-8)	S/O '50 p108
	Vastian man darimtarim Can Diana	U// X 5 E A 1 A A
	Section near downtown San Diego. Cabrillo Fwy. before tree clearing operations began.	S/O '50 p108 S/O '60 p14

ROUTES San Diego Co., Continued	
Sweetwater Rd. crossing toward reentry into Sweetwater Rd. at northeast	
end of South Bay Fwy. project.	J/F '64 p18
Sweetwater Rd. at National City end of project.	J/F '64 p20
Section near middle of project.	J/F '64 p21
Washington St., San Diego after widening. J/A '60 p51;	
San Francisco Co.	-
BART; President Lyndon Johnson and official party at BART ground-breaking.	J/A '64 i.cvr.
Bay Area freeways, general	
Aerial view of S.F. showing freeway units under construction and	
yet to be constructed.	M/A '54 p3
Typical state-built freeway development.	N/D '58 p5
Aerial view of San Francisco freeway system.	J/A '60 p56
I-280 [Southern Fwy., Rt. 82]	•
Section near Newcomb St., looking toward intersection with Bayshore Fwy.	M/J '64 p37
Paving operations along section of I-280 [Rt. 82].	M/J '64 p37
Ocean AveMission St. section under construction.	M/J '64 p38
Grading work in progress for San Jose Ave. relocation.	M/J '64 p38
Construction near Theresa St. pedestrian overcrossing.	J/A '64 p9
Section at junction with US 101. J/A '64 p12;	N/D '64 p18
Traffic being rerouted around construction at Ocean Ave. overcrossing.	J/A '64 p13
Detouring traffic from completed portion east of reconstructed Mission St.	•
viaduct to old Alemany Blvd.	J/A '64 p14
Section near San Jose AveSickles Ave. undercrossing.	J/A '64 p15
Access ramp construction near Monterey Blvd.	J/A '64 p16
Section under construction in San Francisco.	N/D '65 p18
I-405 (Embarcadero Fwy.)	
First stage of Embarcadero Fwy. construction.	M/A '56 p6
Connection to Main and Beale Streets under construction.	M/A '56 p6
First unit of Embarcadero Fwy. under construction.	J/F '57 p57
Cypress St., showing heavy traffic prior to construction of new facilities.	J/F '57 p31
Ramp connection over old Bay Br. approach for eastbound traffic.	J/F '57 p31+
Freeway under construction near Main and Beale streets.	J/F '57 p31
Construction progress toward Embarcadero.	J/F '57 p33
Construction on single and double decked structures.	M/A '57 p5
B.W. Booker, Assistant State Hwy. Engineer at dedication of first unit.	M/J '57 p47
Ribbon-cutting ceremony at first unit dedication.	M/J '57 p47
Construction progress showing Ferry Building in foreground.	S/O '57 p46
Partially completed section of Embarcadero Fwy.	J/F '59 p49
Embarcadero Fwy. looking toward Bay Br.	M/A '59 p35
Assembling piledriver used on Embarcadero Viaduct job.	M/A '59 p36
Viaduct under construction.	M/A '59 p37
Fenced-off vista area on upper deck.	M/A '61 p2
Officials inspect vista area on its opening day.	M/A '61 p2
Entrance to vista area from Broadway on-ramp.	M/A '61 p2
Clay-Washington St. ramps under construction.	M/J '65 p34
Market St., improved section in southwest San Francisco.	N/D '60 p36

ROUTES San Francisco Co., Continued

OUTES San Francisco Co., Continued	
Rt. 1 (19th Ave.) [I-280; Leg. Rt. 56]	
19th Ave. before/after widening of pavement and setting back of residences.	N '40 p16
19th Ave. at Taraval St. before/after widening.	N '40 p17
Park-Presidio Blvd. before/after divided pavement improvement.	N '40 p18
Presidio Approach to Golden Gate Br. [Presidio Fwy.]	1
Main Funston Ave. approach to Golden Gate Br. through Presidio.	Jun '39 p4
Pouring last section of deck of Viaduct "A" which carries the approach	r
highway over West Pacific arterial in the Presidio.	Jun '39 p7
Funston Ave. approach under construction through Presidio.	Mar '40 p22
South approach walls and portal of cut and cover tunnel under Presidio	r
golf course.	Mar '40 p23
Mechanical float finisher and paver surfacing 4-lane divided highway.	Mar '40 p23
Dedication dignitaries.	May '40 p3
Funston Ave. approach looking toward Golden Gate Br.	May '40 p3
Traffic starting over Funston Ave approach.	May '40 p15
Treasure Island-Bay Br. Hwy.	
Aerial photo/drawing of planned roadways.	Jun '38 p22
Steel overhead motorists will use returning from the Expo to East Bay	
points via bridge.	Jun '38 p23
Multi-purpose structure involving problems of horizontal and vertical,	1
reached via Bay Br.	Jun '41 p7
Portion of 6-lane state-built ramp approach.	Jun '41 p7
Photo/sketch of proposed improvements to Bay Br. ramp connection.	M/A '54 p19
Unidentified freeway section in Bay Area.	M/J '64 p20
US 101; Bayshore Fwy. [James Lick Memorial Fwy.]	•
Director Clark handing proposed Bayshore Fwy. report to Chairman Barrett.	Apr '40 p8
Aerial photo of Bayshore Fwy. project under construction in S.F.	M/J '50 p27
Chester H. Warlow (CHC) at dedication.	M/J '51 p1
Col. Jno. H Skeggs, Asst. State Highway Engineer, at dedication.	M/J '51 p1
S.F. Mayor Elmer E. Robinson and official party at ribbon cutting ceremony.	M/J '51 p2
Aerial view of completed section of Bayshore Fwy. in S.F.	M/J '51 p3
Aerial view of Bayshore Fwy. looking toward Bay Bridge.	M/J '51 p4
Section of Bayshore Fwy. which makes travel to the Cow Palace easy.	S/O '51 p54
Construction between Bryant St. and Army St.	J/F '53 p4
Construction from Army St. to 17th St.	J/F '53 p5
Aerial view of San Francisco showing portion of Bayshore Fwy.	N/D '53 p39
S.F. mayor Robinson cutting ceremonial chain at dedication.	N/D '53 p39
S.FBurlingame section under construction.	J/A '47 p10+
Sierra Point-Candlestick Cove Open Water Fill unit	
Aerial views of experimental fill areas.	S/O '52 p13+
General area of experimental fill and borrow pit of Sanitary Fill Co.	S/O '52 p16
Fill in place for overwater section across Candlestick Cove. J/A '54 p3;	
Construction operations for closing gap at Candlestick Point.	M/A '55 p4
Fill operation midway between Candlestick Pt. and Sierra Pt.	M/A '55 p4
Open water fill across Candlestick Cove.	M/A '56 p6
Open water fill under construction; Construction at Sierra Pt.	M/A '57 p4
Old highway and railroad tunnel at Sierra Pt. prior to freeway.	J/A '57 p57
Same section in 1957, with the point and railroad tunnel eliminated.	J/A '57 p57
S.F. Mayor George Christopher performing ribbon-cutting ceremony	
at dedication of overwater section of Bayshore Fwy.	J/A '57 p58
Aerial view of Candlestick Park near over water section.	M/J '61 p9
Central S.F. showing construction extending toward connection with Bay Br.	M/A '54 p4

ROUTES San Francisco Co., Continued

ROOTES San Francisco Co., Continucu	
Army St. interchange-Alemany Blvd. unit, and 3rd. St. construction.	M/A '54 p5
Construction progress between 3rd St. and Alemany Blvd.	M/A '54 p6
View of S.F. skyline, entering city from south on elevated structure.	J/A '54 p8+
Overlooking Potrero Ave.	J/A '54 p8
1st. St. off-ramp for dispersal of Bay Br. traffic.	J/A '54 p9
5th St. ramp looking westerly toward Twin Peaks from Bay Br.	J/A '54 p7
Gov. Knight inspecting 13th and Mission St. unit with contractor Harney.	N/D '54 p21
Construction on final units of connection to Bay Br. approach.	M/A '55 p3
B.W. Booker, builder of skyways, at dedication of Bay Br. approach.	J/A '55 p11
Frank Durkee, Miss San Francisco contestants, and official guests at	
ribbon-cutting ceremony.	J/A '55 p11
Bayshore Fwy. approach to Bay Bridge.	J/A '55 p14
Wendell F. Pond, designer of Bayshore Fwy. and Pres. Mellon of S.F.	
Chamber of Commerce with plaque presented to F.W. Panhorst by AISC.	J/A '55 p15
Official caravan on new Bay Br. approach for ribbon-cutting ceremony.	J/A '55 p15
Section in S.F. near Bay Br., showing approach ramps. M/A '56 p5;	M/A '56 p6
Construction from 3rd St. interchange looking toward Sierra Point fill.	S/O '55 p61
Bayshore Fwy. and 3rd. St. Overcrossing after completion of freeway, 1957.	J/F '64 p17
Maintenance crew beginning work on section in S.F.	J/A '60 p45
Section near S.F. International Airport.	M/J '61 p8
Frontage road along freeway showing landscaping to screen freeway lanes.	M/J '61 p11
Silver Ave. off-ramp near 3-level interchange for Southern Fwy.	M/J '61 p12
US 101; Central Fwy.	
Initial unit, from junction with Bayshore Fwy. at Division St. interchange.	M/A '55 p3
Central Fwy. under construction.	M/A '58 p11
Ramps under construction.	M/A '58 p12
Central Fwy. extension from S. Van Ness Ave. to Turk St.	M/A '59 p11
Completed section between S. Van Ness Ave. and Turk St.	M/J '59 p41
Extension to Golden Gate Ave near Civic Center.	J/F '60 p36
Central Fwy. looking southeast from Turk St. and Gough St. terminus.	M/A '60 p22
Yerba Buena Island, sketch of proposed improvements to Bay Br ramp	
connection superimposed on aerial photograph.	M/A '54 p19
San Joaquin Co.	
Grant Line Rd. looking west from Fremont Rd. before/after improvement.	M/A '51 p32+
I-5 [Westside Fwy.] Adopted route near Delta-Mendota Canal.	S/O '60 p55
Adopted route near Stockton.	S/O '60 p54
Adopted route near junction of Lassen Ave. and Avenal Cutoff Rd.	S/O '60 p53
I-205 [US 50]	
Resurfacing work between Tracy and Banta Rd.	S/O '44 p26
Stockton; aerial view of old and new locations of I-205 [US 50].	M/A '50 p13
Tracy-Altamont Pass Expressway	0/0/54 5
Section near Tracy crossing Delta-Mendota Canal.	S/O '54 p5
Typical traffic slow-up on old Altamont Pass-Tracy route.	N/D '54 p38
Aerial view of expressway looking east toward Tracy.	N/D '54 p40
Mossdale; New lanes and construction near Rt. 120 [Rt. 66] interchange.	J/A '57 p16
Section at Mossdale looking south.	J/A '57 p16
South of French Camp showing temporary transition of 4-lane	T/A 657 10
divided highway to 2-lane road before improvement.	J/A '57 p18
Construction north of Mossdale near San Joaquin River twin bridges.	J/A '57 p18
Newly constructed southbound lanes.	J/A '58 p22

ROUTES San Joaquin Co., Continued Pacific Ave. in 1950 prior to reconstruction under FAS program. J/F '54 p53 Pacific Ave. at Five-mile House intersection. J/F '54 p54 Lower Sacramento Rd. on Pacific Ave. extension near Stockton. J/F '54 p55 J/F '54 p60 South end of project near College of Pacific buildings. Rt. 12; Lodi-Rio Vista Cut-Off approaching Mokelumne River Br. S '42 p3 Rt. 88 [Rt. 97], new alignment across Mokelumne Rvr. near Clements. J/A '54 p37 Rt. 99 [Rt. 4; US 50-99] Flooded Rt. 99 south of Mokelumne River Br., ca. early 1930s. J/F '65 p27 Lodi-Lind's Airport unit Construction at crossing of Mokelumne River just north of Lodi. M/J '57 p44 Four completed lanes, and temporary crossing at grade during construction of Peltier Rd. overcrossing. M/J '57 p45 Manteca Bypass Traffic congestion in Manteca Yosemite Ave./Main St. (Rt. 120/Rt. 99) [Rt. 66/Rt. 99] intersection before bypass. N/D '55 p22 Completed bypass between Cottage Ave. and Louise Ave. N/D '55 p23 Ripon-Manteca expressway Flagman regulating traffic through construction from elevated platform. N/D '53 p25 Construction at Ripon end of project. N/D '53 p25 Construction at Jack Tone Rd. overcrossing. N/D '53 p64 Section looking northwest toward Manteca near Jack Tone Rd. S/O '54 p2 Sacramento-Lodi Expressway Gov. Knight operating bulldozer to break ground for first unit. N/D '54 p43 Section of freeway between Jahant Rd. and Sacramento Co. line. M/A '56 p38 J/F '57 p59 Section of Sacramento-Lodi Fwy. between Galt and Lodi. J/F '48 p35 Salinda; old and new sections of highway. Section crossing Tidewater Southern RR tracks near Turner Station, 1929. J/F '65 p27 Stockton Bypass, grading for realignment underway. S/O '48 p29 S/O '54 p3 Stockton Bypass near Main St. Overcrossing. M/A '50 p13 Stockton Expressway, aerial view of old and new locations of Rt. 99. Stockton-Lodi Fwy. Lodi-Stockton 4-lane divided highway. S/O '48 p27 Mixer charging, front view of spreading machine. N/D '46 p7 Johnson finishing machine at work on portland cement concrete. N/D '46 p38 Position of new lane in relation to old lane. N/D '46 p39 4-lane divided highway between Stockton and Lodi. N/D '47 p24 Full-freeway conversion Linden Rd./Rt. 99 intersection near Stockton before conversion. J/F '65 p25 Frontage road bordering US 99 near Morada Lane. J/F '65 p26 Rt. 99/Rt. 120 (Yosemite) intersection east of Manteca, 1964. J/F '65 p28 Same, prior to construction of freeway ca early 1950s. J/F '65 p28 J/F '65 p29 Cherokee Rd. intersection prior to reconstruction as full freeway. Cherokee Rd. overcrossing following freeway construction. J/F '65 p29 Rt. 120/I-205 [US 50] intersection (Mossdale) Traffic on old road, new road at right, Mossdale Br. in distance. S/O '46 p20 San Luis Obispo S/O '59 p33 Hearst Castle access road after reconstruction. Rt. 1 [Rt. 56]; access road between San Luis Obispo and Camp San Luis Obispo. J/A '45 p24 Rt. 41 [Rt. 125] Atascadero-Morro Bay Hwy., vanguard of automobile caravan at dedication. Jul '38 p19 Reconstructed section in northern part of county. S/O '59 p35 Section near Shandon. J/F '60 p30

ROUTES San Luis Obispo Co., Continued

OUTES San Luis Obispo Co., Continued	
Rt. 46 [Rt. 33]	
Winding road, blind curves on Cambria-Famoso lateral east of Paso Robles.	O '38 p3
Improved section of [US 466] at ascent to Polonio Pass.	M/J '60 p40
Improved alignment near town of Shandon.	M/J '60 p41
Intersection with Rt. 41.	M/J '60 p42
Aerial view of improved highway looking west from Cholame.	M/J '60 p42
Rt. 58; Portions of relocated highway along the Salinas River.	F '42 p5
San Luis Obispo-Baywood Park county road.	S/O '58 p24
US 101	•
Arroyo Grande Bypass, clearing and grading for freeway project.	S/O '58 p27
Completed bypass on US 101.	J/F '60 p36
Arroyo Grande-Pismo Beach full freeway near Grover City interchange.	J/F '57 p21
Atascadero; full freeway at interchange for Rt. 46 [US 466] to Morro Bay.	J/F '57 p23
Completed section of freeway from Santa Margarita to Atascadero.	J/F '57 p23
Cuesta Grade	
Cuesta Grade on US 101, late 1920s.	J/A '60 p54
Cuesta Grade, ca. 1915; 1936; 1960.	S/O '60 i.cvr.
Trucks excavating summit cut and hauling material down existing	
highway to fill north approach of overhead crossing SP tracks.	Aug '37 p13
Two tractors, master bulldozer, and roller pioneering one of fills.	Aug '37 p13
Leveling and compacting fill at north approach to overhead crossing.	Aug '37 p13
One of many Cuesta Grade curves now being eliminated.	May '38 p4
Looking south from Station 216 showing slide with roadbed cut below.	May '38 p5
Unloading top of slide at Station 210.	May '38 p5
Looking south from existing Cuesta Grade.	May '38 p6
Looking south from Station 172.	May '38 p7
New Cuesta Grade construction ready for fine grading.	May '38 p7
Air spade breaking bank and air tampers back-filling on grade.	May '38 p28
Section of new 4-lane divided highway through Cuesta Pass.	D '38 p6
Wide roadbed and easy grade of new Cuesta Pass route.	D '38 p7
Construction scene on huge fill.	D '38 p7
One of many steep, sharp curves on old narrow La Cuesta Rd.	D '38 p8
General view of old winding grade.	D '38 p8
Parking space provided along La Cuesta.	D '38 p9
Cuesta Pass highway before improvement; after improvement.	S/O '50 p19
View looking southerly toward Cuesta Pass.	N/D '50 p22
New lanes constructed for south bound traffic on left, north bound	
traffic carried by existing roadbed, right.	N/D '50 p23
View showing variation of width of median & between grading lines.	N/D '50 p27
Section of US 101 on Cuesta Grade just north of San Luis Obispo.	J/A '54 p2
Widening US 101 through Cuesta Grade.	S/O '58 p23
Miles Br. unit construction, and rough grading near San Luis Obispo Cr.	Aug '41 p11
Line indicating new route, compared to old.	Aug '41 p11
Narrow undergrade crossing on curve.	O '38 p1
Paso Robles Bypass on US 101.	S/O '58 p27
Paso Robles-San Miguel expressway near San Marcos Creek.	M/J '55 p27
Section near Paso Robles; Northerly terminus at San Miguel.	M/J '55 p28+
Pismo Beach; sharp curves, narrow road, and steep grades.	O '38 p2
Freeway construction through Pismo Beach.	J/A '61 p3+
Old route through Pismo Beach prior to construction of freeway.	J/A '61 p4

ROUTES San Luis Obispo Co., Continued

ROUTES San Luis Obispo Co., Continued	
San Luis Obispo (city)	
Construction north of French St.; Section of roadway.	S/O '48 p43
4-lane divided fwy. approaching San Luis Obispo from the north.	S/O '48 p44
4-lane divided freeway at southerly entrance to San Luis Obispo.	J/F '49 p17
Relocated portion of US 101 south of San Luis Obispo.	J/F '49 p41
4-lane divided freeway approaching San Luis Obispo from the north.	S/O '50 p134
Freeway relocation of US 101 south of San Luis Obispo.	S/O '50 p134
Section near San Luis Obispo.	M/J '51 p33
Full freeway development through San Luis Obispo.	J/F '57 p21
San Luis Obispo Bypass on and off-ramps at California Blvd.	•
Section near Buena Vista Overpass, Monterey Heights outer highway.	S/O '54 p47
Section near Santa Rosa St. Overpass.	S/O '54 p47+
Looking north from Marsh St. on-ramp.	S/O '54 p48
San Miguel Bypass, north end looking toward Camp Roberts.	M/A '58 p48
San Miguel Bypass on US 101.	S/O '58 p27
Shell Beach; section north of Pismo Beach looking toward Shell Beach.	N/D '49 p42
View looking northerly through Shell Beach toward San Luis Bay.	N/D '49 p43
Freeway looking northerly on Ontario Grade.	N/D '49 p43
San Mateo Co.	1,12 .5 p.15
Alpine-Portola Rd. [FAS Rt. 1048]	
Section near Ladera subdivision entrance.	J/A '51 p9
Section of Alpine Rd.	J/A '51 p58
Reconstructed section of Alpine-Portola Rd.	M/A '54 p40
Portola Rd. improvement at Dennis Martin Cr.	M/A '54 p41
North end of Portola Rd. reconstruction.	M/A '54 p42
Guard rail emphasizes the narrowness of this coast connection.	F '38 p1
I-280 (Junipero Serra Fwy.)	r
Knowles Ave Interchange section under construction, Daly City.	S/O '64 p36
Skyline Blvd parallel to San Andreas Lake, to be superseded by I-280.	S/O '64 p36
section under construction between Eastman Ave. and Orizaba Ave.	N/D '65 p19
Rt. 1 [Rt. 56]; Ocean Shore Hwy.	P->
Winding, hazardous road which will be eliminated by new state highway.	Jun '37 p4
Section of scenic route which will become modern highway.	Jun '37 p5
Stretch of new highway with San Pedro Mt. in distance.	Jun '37 p5
Construction highway along face of cliff on which engineers constantly	от стро
battle slides which plunge into ocean below.	Jun '37 p5
Looking down valley from Pedro Mt. Summit.	D '37 p1
Section of road typical of new Ocean Shore Hwy.	D '37 p1
Section 1-1/2 miles south of Rockaway Beach, old road visible on left.	D '37 p2
Section near intersection of county road with new Ocean Shore Hwy.	D '37 p2
Construction difficulty encountered on Pedro Mt. section.	D '37 p3
Pescadero Beach on coast across which a right of way has been secured	- * * P*
for Rt. 1 [State Rt. 56].	Jul '40 p12
Three of the beautiful small ocean beaches on the San Mateo coast	va: .vp:=
acquired for public use through right of way deal.	Jul '40 p13
Portion of Pebble Beach.	Jul '40 p13
Charming, crescent beach line of Arroyo de las Frijoles.	Jul '40 p13
Island lot just below Pescadero Beach which through right of way deal	var p.15
becomes public property together with strip of level shoreline.	Jul '40 p13
Ocean Shore Hwy, along beaches acquired for public.	P12
Dedication parade at Pescadero Creek Br. led by Native Daughters	
drill team.	S '41 p5
	r

DOUTECCO M.A. C. C. C. C.	
ROUTES San Mateo Co., Continued	3511 (61 60
Half Moon Bay Bypass on Rt. 1.	M/A '61 p68
Multi-lane highway which replaced outmoded types of roadway.	J/F '48 p34
Pacifica; section near Sharp Park Golf Course.	M/J '65 p38
Pacifica-Skyline Blvd. expressway under construction	M/A '58 p13
South end of freeway; Section near Thornton Bluffs.	M/A '58 p21
San Bruno; 40-ft. highway section, 1926.	J/F '48 p34
Whitehouse-New Years Creek section under construction. M/A '61 p68;	M/J '61 p13
Rt. 35 [Rt. 5]; Skyline Blvd.	
Grading operations from Edgemar Rd. to Rt. 35/Rt. 1 [Rt. 55/Rt. 56]	3-11-1-1
junction in Daly City.	M/A '54 p7
Expressway improvement on Skyline Blvd. through San Mateo.	M/A '55 p6
Skyline Blvd parallel to San Andreas Lake, to be superseded by I-280.	S/O '64 p36
Rt. 82 [US 101*; El Camino Real]	
Atherton; widened section of US 101.	J/A '43 p8
Channelized division strip on improved section approaching Atherton.	J/A '43 p9
Widened avenue through Menlo Park.	J/A '43 p9
Colma; heavy traffic near on Feb. 14, 1926.	J/F '48 p34
El Camino Real in San Bruno, 1914; Same location, 1960.	J/A '60 i.cvr.
Widened section of El Camino Real between Millbrae and San Bruno	
near Tanforan Racetrack.	M/J '64 p41
Rt. 92 (19th Ave.) [Leg. Rt. 105]	
19th Ave. Fwy., planned route of from San Mateo-Hayward Br. and I-280	M/J '61 p18
Elevated freeway through San Mateo.	M/J '64 p40
Sand Hill Rd. before reconstruction; Sand Hill Rd. after improvement.	M/J '60 p61
San Mateo (city)	
Channelized intersection at Parrott Dr. and Alameda De Las Pulgas.	J/A '61 p42
Before/after views of improved curb, gutter, and driveway.	J/A '61 p42
E. Hillsdale Blvd. after improvement.	J/A '61 p43
State Highway Contract No. 1 official party at ground breaking	
for start of construction, Aug 7, 1912. S/O '50 p78;	J/A '52 p45
US 101; Bayshore Fwy. [US 101-By.*]	3-17-11-11
Asphalt concrete pavement near Redwood City. San Mateo	M/J '45 p11
Bayshore project between Burlingame and San Mateo under construction.	N/D '46 p34
Construction of fills around P.G. & E. power poles.	N/D '46 p35
Construction of final subgrade.	N/D '46 p35
Riprap wall and adjacent fill.	N/D '46 p36
Aerial view of Bayshore Fwy looking north toward Sierra Point.	M/J '49 p5
Traffic congestion on old Bayshore Hwy. at Butler Road, South S.F.	M/J '49 p4
Completed section in southern San Mateo Co.	M/A '58 p1
Construction underway near San Mateo-Santa Clara Co. line.	M/A '58 p18
Construction in Redwood City.	M/A '58 p1
San Mateo section at 3rd. Ave. interchange.	M/A '54 p8
Burlingame section in vicinity of Peninsular Ave. interchange.	M/A '54 p8
Completed five-mile section between San Mateo and San Carlos.	J/A '55 p13
Completed section in San Carlos at 10th Ave. interchange.	J/A '55 p13
Completed section of Bayshore Fwy. at Holly St., San Carlos.	M/A '56 p7
Relocation in Redwood City near Harbor Blvd. interchange.	M/A '59 p9
Woodside Rd. expressway, bypassing downtown Redwood City.	M/J '65 p37
[*In 1964 US 101-By became US 101 (Bayshore Fwy.); US 101 became Rt. 82]	

ROUTES, Continued

OU 1 ES, Continued	
anta Barbara Co.	
Casmalia-Santa Maria access road.	J/A '45 p22
Lompoc-Casmalia Rd.; grading operations on "Big Sand Cut" section of	
San Antonio Rd. east of Vandenburg Air Force Base.	J/F '64 p51
Lompoc-Casmalia Rd. at main gate of Vandenburg AFB.	J/F '64 p51
Monticito; Eucalyptus LnSan Ysidro Ln. showing break in curb at intersection.	Jan '38 p2
Westerly end of Montecito project at Olive Mill Rd.	Jan '38 p3
Rolled curb on parting strip.	Jan '38 p3
20-ft. asphalt concrete lane with concrete curbs and earth dividing strip.	May 38 p25
Rt. 1; Lompoc-Santa Maria section	, ,
Vandenburg AFB highway after improvement.	J/F '67 p33
Where cuts were necessary, slopes were made 4 to 1 to blend into terrain.	J/F '67 p34
Section through swamp area; Loop connection with realigned Rt. 1.	J/F '67 p34
Former borrow site, now part of natural landscape.	J/F '67 p34
Rt. 154 (San Marcos Pass Rd.)	1
Looking across headwaters of Cachuma Lake near north end of new highway.	M/J '64 p12
Summer traffic on old route at Cold Springs Canyon Inn.	M/J '64 p13
Vacation traffic on old road leaving Cachuma Lake.	M/J '64 p13
Looking south along new highway from floor of Santa Ynez Valley.	M/J '64 p14
At Paradise Rd. junction.	M/J '64 p14
Relocated highway near Cachuma Lake.	M/J '64 p17
Cut and Fill construction on new highway near top of San Marcos Pass.	M/J '64 p17
Section approaching Surf.	J/F '64 p52
Rt. 166 (Cuyama Rd.)	
Clearing and grading for relocation along Cuyama River.	S/O '58 p26
Relocation due to construction of Twitchell Dam.	S/O '58 p28
Huge cut necessitated by relocation.	M/J '59 p18
Cut and fill work on section of realigned highway.	M/J '59 p19
Swamp-fill work on section of highway.	M/J '59 p19
Santa Barbara; Cliff Dr., paved with city's allocation of gas tax funds for streets.	Jul '39 p21
Turnpike Rd., improved section north of US 101.	S/O '59 p35
US 101 [Rt. 2, Coast Hwy.]	r. P.
Arroyo Quemado-Arroyo Hondo unit	
New lanes constructed for northbound traffic on left, existing roadbed	
serving southbound traffic on right.	J/F '50 p29
View looking westerly across Arroyo Quemado.	J/F '50 p30
Fill constructed across Arroyo Quemado for new northbound lane.	J/F '50 p30
View of embankment, existing bridges across Arroyo Hondo.	J/F '50 p30
Buellton Bypass near Zaca Creek Channel Change.	J/A '65 p28
Aerial view of construction operations showing old and new	F
highways in relation to Buellton.	J/A '65 p29
Buellton Bypass as seen from Santa Rosa Rd. Overcrossing.	J/A '65 p30
View from N. Buellton Overcrossing at Rt. 246/101 separation.	J/A '65 p30
Buellton, construction under way, and structures which were moved back	
to provide extra roadway.	S/O '48 p38+
Buellton-US 101/Rt. 150 junction freeway section.	S/O '59 p31, 37
Carpinteria Expressway looking east toward 7th St. Overpass.	M/A '55 p42
Section at Franklin Creek Br.; Section at Carpinteria Creek Br.	M/A '55 p43
Danger spot on heavily traveled section near Santa Barbara.	F '38 p12
El Capitan Creek unit after reconstruction, showing old highway.	Jun '40 p8
Grade under construction east of El Capitan Cr.	Jun '40 p9
Grade on Coast Highway reconstruction.	Jun '40 p23
G G	r

ROUTES Santa Barbara Co., Continued

ו ע	ES Santa Darbara Co., Continued	
	Elwood-Orella freeway section west of Santa Barbara.	S/O '59 p33, 35
	Gaviota Pass sectionSee also SCENIC HIGHWAYS	
	Drawing of, ca. 1769; Gaviota Pass ca. 1950.	S/O '50 p9
	Gaviota Pass, 1912.	S/O '50 p43
	Gaviota Pass-Santa Inez River section	F '40 p22
	Gaviota Pass-Buellton area, expressway under construction.	S/O '58 p17
	Gaviota Pass-Santa Ynez River scenic portion, after realignment.	Jun '39 p26
	Guadalupe; section in need of reconstruction north of Guadalupe.	O '38 p3
	Los Alamos Bypass on US 101. S/O '58 p27;	J/F '59 p49
	Montecito	
	Divided 4-lane highway with planted dividing strip and 2 parallel	
	service roads separated from general roadway.	O '38 p9
	Montecito Pkwy. with outer highway along southerly side.	M/J '48 p9
	Section of Montecito Pkwy.	M/J '48 p10
	Montecito Pkwy looking east from La Vuelta Dr.	M/J '48 p11
	Construction on Summerland section of Montecito Pkwy.	N/D '51 p54
	Nojoqui Canyon	
	New highway section under construction in Nojoqui Valley.	O '38 p23
	Section of new highway through Nojoqui Canyon.	Jun '39 p9
	Grading operations in progress at Nojoqui Summit.	M/A '51 p8
	Nojoqui Grade showing inadequacy of existing roadway.	M/A '51 p9
	Construction operations on Nojoqui Grade just south of summit.	M/A '51 p9
	Nojoqui expressway section looking north toward Buellton.	J/A '56 p60
	View of expressway looking south.	J/A '56 p60+
	Orella-Canada del Refugio section before/after reconstruction.	Mar '42 p10+
	San Marcos Pass Hwy. after improvement	S/O '50 p43
	Curving section of San Marcos Pass Hwy. before improvement.	J/A '55 p45
	Santa Barbara (city)	0 (41 0
	Reconstructed section west of	O '41 p9
	Rough graded section realignment west of Santa Barbara.	O '41 p11
	Cut slopes being rounded prior to application of top soil.	O '41 p11
	Top soil applied and left rough to let vegetation gain a foothold.	O '41 p11
	Expressway under construction near Santa Barbara on US 101.	S/O '58 p25
	Work in progress on additional lanes west of Santa Barbara.	N/D '61 p18
	Section at Castillo St. undercrossing.	M/A '64 p2
	Section at Anapamu pedestrian overcrossing	M/A '64 p4
	Aerial view of US 101 through Santa Barbara.	M/A '64 p5
	Mission Creek channel change paralleling the freeway. Construction near Mission Creek.	M/A '64 p6
	Santa Barbara Fwy.	N/D '64 p18
	Milpas St. intersection approaching Salsipuedes overhead structures.	J/F '49 p27+
	View of freeway showing Montecito St. as outer highway.	J/F '49 p28
	Santa Barbara-Tecolote Canyon route	J/F 47 P28
	Channelization of Hollister Ave., with signal installation in progress.	M/A '47 p21
	Completed relocation looking north.	M/A '47 p21 M/A '47 p22
	Looking north from San Jose Creek Br.	M/A '47 p22 M/A '47 p22
	LOUKING HOLLI HOLLI DALI JUSC CICCK DI.	1VI/A 7/ P22

ROUTES, Continued

Santa Cla	ıra Co.
-----------	---------

nta Ciara Co.	
Almaden FAS expressway, completed section south of San Jose.	S/O '60 p34
Gilroy; Monterey St. parking conditions, 1951; After improvements, 1955.	M/J '55 p37
I-280 (Junipero Serra Fwy.)	
Section near Sarasota Ave. Interchange.	M/J '64 p43
Completed Sarasota Ave. portion near San Jose.	S/O '64 p37
Completed freeway unit showing Saratoga Ave. interchange.	N/D '64 p63
Completed section of I-280 west of San Jose near Wolfe Rd interchange.	M/J '65 p39
I-880 [Rt. 17]; section of Nimitz Fwy. through San Jose.	N/D '60 p71
Lexington Dam reservoir, realigned highway around.	M/A '55 p34
Rt. 1, Waddell Bluffs unit	
Bulldozer crews on Waddell Bluffs job.	S/O '48 p8
Early stages on construction on Waddell Bluffs project.	S/O '48 p9
Waddell Bluffs Hwy. before paving and striping.	S/O '48 p10
Rt. 17 [Rt. 5]; Los Gatos-Santa Cruz HwySee also EROSION CONTROL	_
San Jose-Los Gatos freeway construction near Saratoga Ave. Interchange.	M/A '58 p19
Scott's Valley link, grading construction work on.	Apr '37 p3
Section of highway at same point showing width of pavement.	Apr '37 p3
Looking toward Camp Evers on newly finished highway.	Apr '37 p3
Los Gatos-Inspiration Point link, heavy grading equipment in operation on	Jun '38 p4
Section of old, winding Los Gatos-Santa Cruz route.	Jun '38 p5
Portion of new road, shown under construction.	Jun '38 p5
Official group at dedication.	Jun '38 p6
Oaks Road-Inspiration Point unit, heavy grading underway on realignment.	O '38 p13
Clearing operations for large fill across deep ravine on new route.	O '38 p5
Group at "log-cutting" ceremony at dedication.	Jul '39 p24
Frank W. Clark delivering address at dedication and opening.	Jul '39 p25
New 4-lane highway, with old alignment at right.	Jul '39 p28
Oaks Road-Los Gatos [final] unit	-
Official group at highway dedication.	S '40 p10
Wide, sweeping curves on completed highway unit.	S '40 p11
Los Gatos Bypass	•
Completed first unit showing grading in progress for future extension.	M/A '57 p8
Bypass near Main St. Br. showing reconstruction of Los Gatos Cr.	M/A '57 p8
Section of new Los Gatos highway, Charles St. connection.	M/J '57 p47
Los Gatos; Rt. 9 [Rt. 42]-Bascom Ave. section	M/A '59 p9
Construction near Stevens Creek Rd. Interchange in San Jose.	M/A '59 p9
Section at Stevens Creek Rd. Interchange, San Jose.	M/A '60 p25
Rt. 82 [US 101*]	•
Bay Shore Hwy.	
San Jose section, official group at ribbon-cutting.	Jul '37 p19
Extension at Ford Rd. where it joins Bayshore Hwy. [US 101].	J/A '47 p8
Approach to Ford Rd. Interchange at connection with Bayshore Hwy.	J/A '47 p9
Section of Bayshore Hwy. on outskirts of San Jose.	J/A '47 p9
Bayshore Hwy. at Santa Clara Ave.	J/A '47 p9
Coyote-Morgan Hill-Llagas Creek unit widening	•
Finishing machine spreading leveling course at end of surface run.	Aug '38 p16
Business section in Morgan Hill showing buildings set back	• •
to promote highway widening.	Aug '38 p17
Shovel removing surplus excavation while trucks place borrow	- •
material along widened section of roadway.	Aug '38 p17
Section near Morgan Hill, Santa Clara Co.	Jul '39 p11
	=

ROUTES Santa Clara Co., Continued Gilroy; divided highway construction on improved section of Rt. 82 [US 101]. Jan '42 p17 Pajaro River section Realignment under construction. Aug '41 p18 Typical new roadway north of Pajaro River near Sargent. Jan '42 p14 Jan '42 p16 Stretch of new divided highway at Sargent. Rt. 85 [Stevens Creek Fwy.] Under construction near junction with Rt. 237. M/J '65 p40 Section of Rt. 85; Rt. 85 through Mountain View. J/A '66 p45 Rt. 152; Pacheco Pass Realignment showings cuts and fills eliminating curves. F '39 p11 Several of 31 sharp curves on Pacheco Pass highway being eliminated. F '39 p11 S '39 p7 Realigned portion of Rt. 152 through Pacheco Pass. Section of previous construction on Pacheco Pass Hwy. with the new alignment on right and old roadway on left. M/A '51 p34 M/A '51 p35 Benching of cuts and embankment toe protection of new highway. Contrast between new construction and old alignment. M/A '51 p36 Demolition charges being set during bypass construction. N/D '64 p22 Fill for Pacheco Pass expressway. N/D '65 p15 Pacheco Pass highway after relocation. N/D '65 p67 Rt. 237; cleared right-of-way near Dana Rd. Overcrossing. M/J '64 p44 San Jose Lincoln Ave. before improvement; Same location after. S/O '55 p48 Lincoln Ave. between Brace and Minnesota before improvement. S/O '55 p49 S/O '55 p49 Same location after. J/F '67 p23 Aerial view of greater downtown area. US 101* (Bayshore Fwv.) [US 101-By] Construction work on Bayshore Fwy. M/A '46 p3 M/A '46 p4 Terra-Cobra with caterpillar dozer-pusher excavating rocky material. Completed rough grade in sidehill cut. M/A '46 p4 Construction near Moffett Field. M/A '59 p9 M/A '59 p1 Palo Alto section near University Ave. interchange. Palo Alto; section at Willow Rd. Interchange. M/A '60 p19 M/A '60 p19 Looking westerly across University Ave. Interchange. Bayshore Fwy. through San Jose. M/J '61 p10 Bayshore Fwy. under construction south of San Jose. M/J '61 p10 Construction in Mountain View area near Moffett Field. M/J '61 p10 M/A '57 p6 US 101 [US 101-By] east of San Jose near McKee Rd. interchange. Completed interim project between Llagas Cr. and Morgan Hill. M/A '57 p8 [*In 1964 US 101-By became US 101 (Bayshore Fwy.); US 101 became Rt. 82] Santa Cruz Mt. Hermon Rd. between Rt. 9 [Rt. 116] and Rt. 17 after improvement. [FAS] N/D '54 p31 Rt. 35 [Rt. 55]; Skyline Blvd. route near Woodwardia in Santa Cruz. S '38 p2 Rt. 1 [Rt. 56] Cabrillo Hwy. at interchange with State Park Dr. M/J '64 p46 Davenport-Waddell Cr. unit, sections of new highway. O '39 p11 Laguna Creek improvement near north end of job. J/A '54 p12 J/A '54 p13 Improved roadway looking south toward Laguna Creek fill. May '39 p16 Ocean Shore Hwy. relocation under construction north of Santa Cruz. Section of old, narrow winding highway on coast north of Santa Cruz. May '39 p17

May '39 p17

Equipment widening grade; new roadbed along ocean bluffs.

ROUTES Santa Cruz Co., Continued

ROUTES Santa Cruz Co., Continued	
Rob Roy Junction-Santa Cruz Fwy.	
Deep excavation work in progress near Soquel.	N/D '48 p9
Gov. Earl Warren, Col. Jno. H. Skeggs, Senator H. Ray Judah, and	
George T. McCoy on speakers platform at dedication.	N/D '49 p1
Aerial view of Santa Cruz Fwy near Aptos.	N/D '49 p3
Aerial view of freeway at Soquel Rd. and Paul Sweet Rd. interchange.	N/D '49 p4
Gov. Warren with drum majorettes and high school band members	1
at freeway dedication.	N/D '49 p6
Section of freeway between Rob Roy Junction and Santa Cruz.	S/O '50 p100
Rob Roy-Watsonville Hwy. under construction.	Jul '41 p19
Stretch of Watsonville-Rob Roy highway.	N '42 p12
3-lane highway between Watsonville and Rob Roy Junction.	N '42 p13
Watsonville Bypass, first phase of construction completed.	M/J '65 p41
Rt. 17 [Rt. 5]	141/3 03 p+1
Completed Rt. 17 entrance into Santa Cruz near Ocean St. interchange.	M/A '57 p8
Los Gatos-Santa Cruz HwySee Santa Clara Co.	141/11 37 po
Rt. 17 at Pasatiempo Interchange.	M/A '60 p30
Rt. 17 at Fasattempo interenange. Rt. 17 near Santa Cruz.	-
	M/J '61 p14
Shasta Co. Develop Rd [FAS 1250] conicl view of country through which it recess	I/A 466 m20
Dersch Rd. [FAS 1350], aerial view of country through which it passes.	J/A '66 p38
I-5 [US 99, Rt. 3]	C/O '51 -10
Anderson before/after construction of divided highway.	S/O '51 p10
Anderson-Cottonwood unit	M/A 440 24
4-lane highway on north side of Cottonwood Hill, Anderson at far end.	M/A '49 p34
Aerial view showing old road on left and new highway on right.	M/A '49 p35
4-lane divided highway into Cottonwood.	M/A '49 p35
Highway entering Anderson.	M/A '49 p36
Antler Br section; equipment grading for relocation through mountains	
north of Shasta Dam at south end of Antler Br.	Apr '41 p14
Grading down steep mountainside for Antler Br. approach.	Apr '41 p15
Bass Hill-Mountain Gate section under construction.	N/D '55 p48
Bass Hill-O'Brien Summit relocation underway.	Jun '40 p6
Heavy equipment at work excavating, grading, and constructing	
fills for highway relocation north of O'Brien.	Jun '40 p25
Cottonwood; I-5 freeway near Cottonwood.	J/F '65 p35
Approaching 4th St. Interchange, 1st. St. Overcrossing, Cottonwood	
Creek Br. and Overhead near town of Cottonwood.	J/F '65 p36
Lake Britton-Burney Falls; realigned section on Sierra Way.	May '40 p24
La Moine, relocated section north of.	N '39 p4
Grading operations, and building fill over large culverts.	N '39 p5
Redding; north entrance to city at night; Same location, day.	M/A '58 p7
Section north of, designed with a wide, traversable dividing strip.	M/A '56 p44
Sharp alignment, steep bridge approach, blind vertical, and	•
narrow bridge at Redding city limits.	Jul '38 p1
3-way channelization project near Redding.	O '41 p23
Section south of Redding before and after improvement.	S/O '51 p56
Sacramento River Canyon section	1
Typical highway construction ca. 1928.	M/J '56 p33
4-lane divided highway near south end of canyon, north of Redding.	M/J '56 p34
Section near Castella before improvement.	M/A '58 p7
Completed section of expressway in Sacramento Rvr. Canyon.	N/D '59 p12, 14
r	- · r, - ·

ROUTES Shasta Co., Continued

Shasta Dam relocation	
Highway relocation work south of Shasta Dam.	Jun '40 p7
Section relocated around Shasta Lake site near Black Oak Summit.	F '43 p3
Section relocated around Shasta Dam Lake site near O'Brien Summit.	F '43 p2
Reconstructed highway around Shasta Lake.	M/J '56 p35
Vollmers; old highway, showing poor alignment and sight distance.	J/F '57 p25
Completed section of new freeway.	J/F '57 p25
Redding; I-5 [US 99]/Rt. 44 intersection before/after improvement.	S/O '51 p9
Channelization intersection.	N/D '59 p15
Rt. 44 [Leg. Rt. 20]	•
Feather Lake Hwy., improved section of	N/D '61 p44
Section at north entrance to Lassen Volcanic National Park.	N/D '59 p16
Rt. 44 expressway at Stillwater Rd.	M/J '65 p20
Rt. Expressway east of Cow Creek.	M/J '65 p20
Curve on old highway.	M/J '65 p20
Rt. 44 expressway near intersection with Deschutes Rd.	M/J '65 p22
Rt. 89 between Burney and Lassen Park boundary.	M/A '58 p7
Rt. 299	•
Construction on Hatchet Mountain section.	N/D '51 p55
Improved section east of Hatchet Mt. Summit.	M/A '60 p33
Snow removal operations on summit.	M/A '60 p34
Normal winter snow conditions between Montgomery Cr. and Burney Valley.	M/A '60 p34
West from Burney Valley showing nearly completed expressway.	M/A '60 p69
Rough grade completed on east side of Hatchet Mt.	M/A '60 p69
Partly completed embankment across Whiskey Creek Arm.	M/J '61 p52
Shasta-Schilling highway under construction.	N/D '47 p7
Stretch of Shasta-Schilling highway.	N/D '47 p8
Deep cuts on highway, benched to remove unstable material.	N/D '47 p8
Sierra Co.	
I-80 [US 40] construction near Floriston.	J/A '58 p9
Rt. 49 [Rt. 25] Yuba Pass Hwy.	
Nevada City-Downieville unit; heavy rock excavation on realigned section.	M/J '46 p2
Section of new highway between Nevada City and Downieville.	M/J '46 p3
Improved section west of Downieville.	J/A '58 p8
Sierra City-Bassetts unit, expressway	
Expressway between Sierra City and Bassetts	J/A '63 p19
Section of improved Yuba Pass Hwy.	M/J '65 p2
Section of old highway before widening and improvement.	M/J '65 p2
Widened roadway at Manzanita.	M/J '65 p3
Aerial view of project and surrounding area.	M/J '65 p4
Big Springs safety rest area.	M/J '65 p5
Siskiyou Co.	
I-5 [US 99]	D (40 00
Completed section over Siskiyou Mts. built by Oregon and California.	D '40 p23
Old section of I-5 [US 99]; Stretch of realigned I-5 [US 99].	J/F '50 p13
Black Butte realignment between Shasta City and Weed.	S/O '51 p6
Section of Black Butte realignment looking south from Weed.	S/O '51 p7
Ribbon-cutting participants at dedication.	S/O '51 p7
Section of realignment looking south toward Black Butte.	S/O '51 p64

ROUTES Siskiyou Co., Continued	
Dunsmuir business district before improvement.	S/O '51 p2
Curve on roadway near Dunsmuir.	S/O '51 p3
Completed expressway north of Dunsmuir.	M/A '58 p6
Section of new expressway on approaching Castle Crags.	M/A '58 p7
Aerial view of Dunsmuir with drawing of future interstate freeway.	M/A '58 p16
Dunsmuir Fwy., excavation operation on "Big Fill" section.	J/A '60 p16
"Big Cut" section north of Dunsmuir.	J/A '60 p16
Mt. Shasta; I-5 near interchange at Lake St.	N/D '64 p65
Completed section of I-5 freeway near Mt. Shasta city.	M/A '65 p57+
Aerial view of completed freeway showing Lake St. overcrossing.	M/A '65 p58
I-5 [US 99]-US 97 Cut-off [FAS Rt. 1166].	M/A '55 p38
I-5 [US 99]-US 97 Cut-off heading toward Mt. Shasta.	M/A '55 p39
Sheep Rock near westerly terminus of I-5 [US 99]-US 97 Cut-off.	M/A '55 p39
Obsolete alignment and inadequate 15-ft. pavement [unidentified route].	Jul '38 p3
Rt. 3 [Rt. 82], Scott Valley Hwy.	
Entering Ft. Jones; Realigned section southwest of Yreka.	M/A '58 p13
New highway over Scott Mt. between Yreka and Ft. Jones.	M/A '58 p15
New highway and bridge on Rt. 82 north of Ft. Jones.	N/D '59 p17
FAS Rt. 1089 unit [Oregon Trail], improved north of Callahan.	J/F '60 p36
FAS Rt. 1089 unit [Oregon Trail], improved at south end of Scott Valley.	M/A '60 p45
Rt. 139 [Rt. 210, California-Oregon State Line Hwy.] west of Tulelake.	N/D '59 p17
US 97	
Cougar-Macdoel section of highway.	D '38 p19
Route looking south across Wild Horse Mesa.	D '38 p19 D '38 p19
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags	D '38 p19
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction.	D '38 p19 D '38 p20
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line.	D '38 p19 D '38 p20 M/A '55 p22+
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line. Highway parsing through cut near railway tunnel.	D '38 p19 D '38 p20 M/A '55 p22+ M/A '55 p22+
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line. Highway parsing through cut near railway tunnel. Section of US 97 north of Weed.	D '38 p19 D '38 p20 M/A '55 p22+
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line. Highway parsing through cut near railway tunnel. Section of US 97 north of Weed. Solano Co.	D '38 p19 D '38 p20 M/A '55 p22+ M/A '55 p22+ N/D '59 p13
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line. Highway parsing through cut near railway tunnel. Section of US 97 north of Weed. Solano Co. Access road project north of Vallejo.	D '38 p19 D '38 p20 M/A '55 p22+ M/A '55 p22+ N/D '59 p13 M/J '45 p10
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line. Highway parsing through cut near railway tunnel. Section of US 97 north of Weed. Solano Co. Access road project north of Vallejo. Tennessee St. signalized intersection.	D '38 p19 D '38 p20 M/A '55 p22+ M/A '55 p22+ N/D '59 p13
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line. Highway parsing through cut near railway tunnel. Section of US 97 north of Weed. Solano Co. Access road project north of Vallejo. Tennessee St. signalized intersection. 1-80 [US 40]	D '38 p19 D '38 p20 M/A '55 p22+ M/A '55 p22+ N/D '59 p13 M/J '45 p10
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line. Highway parsing through cut near railway tunnel. Section of US 97 north of Weed. Solano Co. Access road project north of Vallejo. Tennessee St. signalized intersection. 1-80 [US 40] Davis-Dixon cut-off	D '38 p19 D '38 p20 M/A '55 p22+ M/A '55 p22+ N/D '59 p13 M/J '45 p10 J/A '58 p16
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line. Highway parsing through cut near railway tunnel. Section of US 97 north of Weed. Solano Co. Access road project north of Vallejo. Tennessee St. signalized intersection. 1-80 [US 40] Davis-Dixon cut-off Typical section of 4-lane divided highway, partially completed.	D '38 p19 D '38 p20 M/A '55 p22+ M/A '55 p22+ N/D '59 p13 M/J '45 p10 J/A '58 p16 O '42 p10
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line. Highway parsing through cut near railway tunnel. Section of US 97 north of Weed. Solano Co. Access road project north of Vallejo. Tennessee St. signalized intersection. I-80 [US 40] Davis-Dixon cut-off Typical section of 4-lane divided highway, partially completed. Dixon; portland cement paved section near Dixon.	D '38 p19 D '38 p20 M/A '55 p22+ M/A '55 p22+ N/D '59 p13 M/J '45 p10 J/A '58 p16 O '42 p10 M/J '47 p10
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line. Highway parsing through cut near railway tunnel. Section of US 97 north of Weed. Solano Co. Access road project north of Vallejo. Tennessee St. signalized intersection. I-80 [US 40] Davis-Dixon cut-off Typical section of 4-lane divided highway, partially completed. Dixon; portland cement paved section near Dixon. American Canyon section.	D '38 p19 D '38 p20 M/A '55 p22+ M/A '55 p22+ N/D '59 p13 M/J '45 p10 J/A '58 p16 O '42 p10 M/J '47 p10 S/O '48 p2
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line. Highway parsing through cut near railway tunnel. Section of US 97 north of Weed. Solano Co. Access road project north of Vallejo. Tennessee St. signalized intersection. I-80 [US 40] Davis-Dixon cut-off Typical section of 4-lane divided highway, partially completed. Dixon; portland cement paved section near Dixon. American Canyon section. View on American Canyon section with added lanes on left.	D '38 p19 D '38 p20 M/A '55 p22+ M/A '55 p22+ N/D '59 p13 M/J '45 p10 J/A '58 p16 O '42 p10 M/J '47 p10 S/O '48 p2 M/A '50 p7
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line. Highway parsing through cut near railway tunnel. Section of US 97 north of Weed. Solano Co. Access road project north of Vallejo. Tennessee St. signalized intersection. I-80 [US 40] Davis-Dixon cut-off Typical section of 4-lane divided highway, partially completed. Dixon; portland cement paved section near Dixon. American Canyon section. View on American Canyon section with added lanes on left. Building embankment to widen I-80 [US 40] at American Canyon.	D '38 p19 D '38 p20 M/A '55 p22+ M/A '55 p22+ N/D '59 p13 M/J '45 p10 J/A '58 p16 O '42 p10 M/J '47 p10 S/O '48 p2 M/A '50 p7 S/O '61 p6
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line. Highway parsing through cut near railway tunnel. Section of US 97 north of Weed. Solano Co. Access road project north of Vallejo. Tennessee St. signalized intersection. 1-80 [US 40] Davis-Dixon cut-off Typical section of 4-lane divided highway, partially completed. Dixon; portland cement paved section near Dixon. American Canyon section. View on American Canyon section with added lanes on left. Building embankment to widen I-80 [US 40] at American Canyon. Construction on I-80 [US 40] at American Canyon interchange.	D '38 p19 D '38 p20 M/A '55 p22+ M/A '55 p22+ N/D '59 p13 M/J '45 p10 J/A '58 p16 O '42 p10 M/J '47 p10 S/O '48 p2 M/A '50 p7 S/O '61 p6 S/O '61 p9
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line. Highway parsing through cut near railway tunnel. Section of US 97 north of Weed. Solano Co. Access road project north of Vallejo. Tennessee St. signalized intersection. 1-80 [US 40] Davis-Dixon cut-off Typical section of 4-lane divided highway, partially completed. Dixon; portland cement paved section near Dixon. American Canyon section. View on American Canyon section with added lanes on left. Building embankment to widen I-80 [US 40] at American Canyon. Construction on I-80 [US 40] at American Canyon interchange. Wagon drill preparing to blast for roadway excavation and fill.	D '38 p19 D '38 p20 M/A '55 p22+ M/A '55 p22+ N/D '59 p13 M/J '45 p10 J/A '58 p16 O '42 p10 M/J '47 p10 S/O '48 p2 M/A '50 p7 S/O '61 p6 S/O '61 p9 S/O '61 p9
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line. Highway parsing through cut near railway tunnel. Section of US 97 north of Weed. Solano Co. Access road project north of Vallejo. Tennessee St. signalized intersection. 1-80 [US 40] Davis-Dixon cut-off Typical section of 4-lane divided highway, partially completed. Dixon; portland cement paved section near Dixon. American Canyon section. View on American Canyon section with added lanes on left. Building embankment to widen I-80 [US 40] at American Canyon. Construction on I-80 [US 40] at American Canyon interchange. Wagon drill preparing to blast for roadway excavation and fill. Cordelia; section near I-680 [Rt. 21] interchange.	D '38 p19 D '38 p20 M/A '55 p22+ M/A '55 p22+ N/D '59 p13 M/J '45 p10 J/A '58 p16 O '42 p10 M/J '47 p10 S/O '48 p2 M/A '50 p7 S/O '61 p6 S/O '61 p9 S/O '61 p10
Route looking south across Wild Horse Mesa. Tractors equipped with big rubber tired wheels and weighted bags of cement rolling soil-cement base construction. Looking south on US 97 from Oregon line. Highway parsing through cut near railway tunnel. Section of US 97 north of Weed. Solano Co. Access road project north of Vallejo. Tennessee St. signalized intersection. 1-80 [US 40] Davis-Dixon cut-off Typical section of 4-lane divided highway, partially completed. Dixon; portland cement paved section near Dixon. American Canyon section. View on American Canyon section with added lanes on left. Building embankment to widen I-80 [US 40] at American Canyon. Construction on I-80 [US 40] at American Canyon interchange. Wagon drill preparing to blast for roadway excavation and fill.	D '38 p19 D '38 p20 M/A '55 p22+ M/A '55 p22+ N/D '59 p13 M/J '45 p10 J/A '58 p16 O '42 p10 M/J '47 p10 S/O '48 p2 M/A '50 p7 S/O '61 p6 S/O '61 p9 S/O '61 p9

California Highways and Public Works

PHOTOGRAPH INDEX 1937-1967

ROUTES Solano Co., Continued Fairfield Bypass under construction. J/A '49 p45 Aerial view of project looking toward Fairfield. N/D '50 p45 Aerial view of construction between Fairfield and the Napa Wve. N/D '50 p46 N/D '50 p47 Aerial view of Fairfield Bypass. M/A '50 p5 View on Fairfield bypass showing westerly approach to Fairfield. M/A '50 p6 Section of Fairfield bypass near east entrance to Fairfield. Section at Abernathy Rd. interchange approaching Fairfield. S/O '61 p10 Section near Travis Blvd overcrossing. J/F '65 p49 Rio Vista; Main St. prior to widening and reconstruction; Main St. after. S/O '65 p10 Vaca Valley route [then Rt. 6-7] in 1937. J/F '65 p50 Vacaville Bypass End of completed pavement where existing highway enters city on curve. F '37 p5 Street passing two school houses on old alignment. F '37 p5 Short radius "S" curves, schoolhouse in background. F '37 p5 Large cut in new alignment. F '37 p5 Newly completed Vacaville Bypass. Jun '37 p15 Vacaville vicinity--See also ROADSIDE BUSINESSES & BYPASSES Section of 20-ft. Portland cement concrete pavement near Vacaville. May 38 p14 Main St., Vacaville ca. 1890s. S/O '50 p94 Jul '37 p10 Section of highway near Vacaville. Vibrator spreader attached to tampering and kneading machine. J/A '46 p12 J/A '46 p13 Cut widening at south end of project near Vacaville. Crew placing headers while traffic uses the existing road. J/A '46 p13 Resurfaced section near Vacaville. J/A '52 p51 4-lane divided highway near Vacaville. J/F '47 p26 Widening project near Vacaville at intersection with Cherry Glen Rd. M/A '50 p6 M/A '50 p7 Widening project west of Vacaville. Grading two additional lanes for 4-lane divided highway near Vacaville. J/A '51 p63 N/D '64 p18 Section near I-505 junction. Nut Tree; entrance to outer highway off I-80 [US 40]. J/A '51 p63 Entrance to Nut Tree before, showing haphazard parking movements. J/F '53 p34 J/F '53 p35 Entrance to Nut Tree after, with controlled access. Section approaching Nut Tree. J/F '65 p49 J/A '51 p64 Grading for outer highway near Vacaville-Dixon P.G. & E. substation. Construction near Meridian Rd overcrossing and P.G. & E. substation. J/F '65 p51 Vallejo Constructing retaining wall between main highway and outer highway. J/A '48 p8 Rough grading near Fleming Ave.; Rough grading near Tennessee St. J/A '48 p9 Excavating for entrance to underpass at 4th St. J/A '48 p10 Section near I-80/I-780 [US 40/Rt. 74] intersection. S/O '57 p63 Looking northerly across Lake Chabot where frontage road for Vallejo freeway project is to be constructed. S/O '57 p63 Section through Vallejo near Tennessee St. Interchange. J/A '59 p6 I-80 [US 40]-Benicia Rd. intersection prior to construction of freeway. J/A '61 p25 J/F '65 p48 Signalized intersection of I-80/Benicia Rd., 1943. I-80 [US 40]-Georgia St. intersection before freeway; Same section after. J/A '61 p26 Rt. 12; Suisun-Denverton Fwy. Tideland area at northerly end of Suisun Bay which freeway will traverse. J/A '57 p31

J/A '57 p31 J/A '59 p5

S/O '44p19+

S/O '61 p75

Easterly end of project before improvement.

Relocation work near Rio Vista Br. across the Sacramento River. Rt. 29; Vallejo-Napa Hwy. where Bassalt Co. subway crosses under highway.

Rt. 37 [Rt. 48]; detour under construction to right of old Rt. 48.

ROUTES, Continued

OUTES, Continued	
onoma Co.	
Healdsburg road, 1859.	M/J '64 p3
Rt. 12; Blind curves on Guerneville-Monte Rio route along Russian River.	S '38 p2
Rt. 37	
Shoulder widening on Sears Point Cut-off from excess excavation.	J/A '50 p40
Junction of Black Point and Sears Point Cut-offs on relocated line.	J/A '50 p40
Rt. 116 [Russian River Hwy.; Gravenstein Hwy.]	•
Old Northwood Park-Guerneville Hwy. showing curves and grades.	Jul '39 p4
Backfilling bulkheads with porous river gravel for new highway.	Jul '39 p5
Steel piles and treated timber bulkheads for construction near Monte Rio.	Jul '39 p27
Realigned highway between Guerneville and Monte Rio along the river.	O '39 p14
L.G. Hitchcock (CHC) about to use ax to sever redwood barrier.	O '39 p14
Beautiful vistas through the redwoods greet the eye on new highway.	O '39 p15
US 101	O 37 p13
Asti Bypass under construction.	M/J '64 p47
Cloverdale; slipout-damaged section along Russian River.	J/A '64 p24
Geyserville freeway section.	M/J '65 p42
Healdsburg, construction mishap near 1914.	J/A '64 p25
Healdsburg Bypass near intersection with old highway at Grant.	M/A '60 p29
Aerial view of Healdsburg Bypass under construction.	N/D '60 i.cvr.
Construction underway south of Healdsburg Bypass.	M/J '61 p7
	_
Healdsburg Bypass near twin bridges across Russian Rvr. Marin-Sonoma Hwy.; San Rafael-Novato-Petaluma unit	M/J '61 p7
	S/O 47 n5
C.H. Purcell and guests at Marin-Sonoma Rt. dedication.	S/O '47 p5
Petaluma, poorly aligned section near.	F '38 p12
Redwood Hwy. near Petaluma, 1916.	J/A '64 p27
Petaluma Bypass	NA/A 555 15
Aerial view of Petaluma showing proposed route of bypass.	M/A '55 p15
Old route through congested main Street in Petaluma.	M/J '55 p8
Constructing embankment; Shovel excavating dirt.	M/J '55 p9
Bypass looking northerly; Looking southerly from Denman Flat.	M/A '57 p18
Santa Rosa Bypass	M/T (40 - 61
Jno. H. Skeggs addressing audience at dedication ceremonies.	M/J '49 p61
Santa Rosa Fwy. at Sebastopol Ave.	M/J '49 p61
Aerial photo taken during grading operations, showing new freeway	
in comparison with old route through town.	M/J '49 p62
Santa Rosa Ave. looking north at southerly intersection.	M/J '49 p63
Santa Rosa Fwy. looking south at intersection of Ridgeway Ave.	M/J '49 p63
Santa Rosa, section of US 101 through.	M/J '65 p43
Valley Ford-Bodega Bay Hwy. [FAS Rt. 777] section prior to improvement.	M/J '57 p5, 7
Same section after improvement.	M/J '57 p6+
Improved sections of route.	M/J '57 p6+
nislaus Co.	
East Modesto Rd. [FAS 1226] looking south from Stanislaus River.	S/O '58 p29
View of East Modesto Rd. showing bridge across Stanislaus Rvr.	S/O '58 p30
FAS Rt. 912 paralleling Rt. 99 near Empire, looking southeast.	N/D '48 p19
Maze Rd. between Modesto and Tracy, a boon to agriculturists.	Jul '37 p17
McHenry Ave. near Orangeburg intersection in Modesto before/after widening.	M/J '60 p58+
McHenry Ave. during construction.	M/J '60 p59

ROUTES Stanislaus Co., Continued Rt. 99 [US 99]

Rt. 99 [US 99]	
Modesto-Salida divided highway	
Roadside trees preserved on separation strip north of Modesto.	May '39 p6+
Divisional island on new section of divided highway.	May '39 p7
Guard rail on new section near Modesto.	May '39 p7
4-lane divided, and outer hwy. on left approaching Salida from south.	N/D '47 p23
Modesto-Keyes divided highway unit.	O '41 p15
Modesto-Ceres Bypass crossing over 9th St. [old US 99] and 7th St.	S/O '65 p6
Freeway at North St. near Ceres Park; Freeway at Crows Landing Rd.	S/O '65 p7
Traffic congestion on 9th St. [old US 99] through Modesto.	S/O '65 p8
Detour during freeway construction.	S/O '65 p8
Resurfacing 9th St. [old US 99] in Modesto.	S/O '65 p9
Aerial view of new Modesto-Ceres Fwy.	S/O '65 p9
Turlock; concrete pavement section south of.	J/A '52 p51
Typical mid-valley section of Rt. 99 expressway near Turlock.	S/O '54 p2
Rt. 120 at Jones Curve east of Oakdale, after relocation.	J/A '58 p20
	J/A 36 p20
Sutter Co. Describer Plant between Pt. 70 [Pt. 24] and Misseleus, often immersioned	1/4 (50 - 52
Drescher Blvd. between Rt. 70 [Rt. 24] and Nicolaus, after improvement.	J/A '59 p53
El Centro Blvd. [FAS Rt. 926.], before/after views of.	M/A '50 p49
Live Oak; 15th St., after improvement.	J/A '60 p50
Rt. 20 [Rt. 15]; Tahoe-Ukiah lateral realignment.	Jan '38 p13
Official group at dedication of Sutter Bypass link of Tahoe-Ukiah Hwy.	Jan '38 p13
Rt. 70-99 after widening and installation of left-turn lane.	S/O '65 p18
Tehama	
I-5 [US 99]; relocated section north of Red Bluff.	Mar '41 p17
One of sharp curves eliminated by relocation of section north of Red Bluff.	O '40 p16
I-5 between Red Bluff and Shasta Co. line.	N/D '64 p17
Narrow oiled earth road.	Jul '38 p3
Rt. 36; Official party at "log sawing" ceremony.	N/D '57 p53
Four-lane section just south of Lassen Volcanic National Park.	N/D '59 p16
2-lane highway on Rt. 36, 31 miles west of Red Bluff.	N/D '59 p18
Trinity Co.	
14-ft. roadway with many hairpin turns on grade.	Jul '38 p3
Rt. 3 [Rt. 82, FAS Rt. 1089], unimproved section south of Carrville.	M/A '60 p63
Rt. 299W [Rt. 20; Trinity Lateral]	-
Dirt roads on route, ca .1938.	F '38 p14
Sayler-Burnt Ranch section; grading operations.	J/A '47 p15
Grading operations on rocky section east of Cedar Flat.	J/A '47 p15
Nearly completed section across Gray's Bluff.	J/A '47 p15
Winding, narrow section near Sayler before improvement.	J/A '47 p15
Trinity Lateral.	M/J '50 p45
Weaverville-Douglas City portion, heavy grading for relocation.	M/J '57 p59
Main street of Weaverville after improvements.	M/J '57 p61
Construction on Rt. 299.	M/A '58 p9
Improved section of US 299 east of Weaverville.	M/A '58 p10
Section south of Weaverville in 1914; Same location, 1958.	M/J '60 i.cvr.
Weaverville-Junction City Hwy.	141/3 00 1.041.
Hydraulic giant working on highway excavation in Oregon Gulch.	Aug '39 p3
View from summit of Oregon Mt. looking down on future highway grade.	Aug '39 p3
Partially graded highway approaching hydraulic cut through Oregon Mt.	Aug '39 p3 Aug '39 p4
Roadway in Oregon Gulch built with hydraulic tailings.	
Hydraulicking operations on Oregon Hill.	Aug '39 p5 M/J '50 p21
Trydrauneking operations on Oregon Tim.	1V1/J JU PZ I

ROUTES, Continued

ROUTES, Continued	
Tulare Co.	
Cherry Ave. in Tulare after improvement.	J/F '52 p43
Rt. 65 (Orange Belt Hwy.)	
Section of new link entering the city of Porterville.	Jul '38 p8
Gathering at ribbon cutting ceremony.	Jul '38 p9
Exeter link portion after improvement.	Aug '39 p25
Equipment at work on Ducor Cut-off near Porterville.	Jul '40 p22
Completed Ducor Cut-off; Looking northerly into big cut.	Jul '40 p23
Porterville Bypass on Rt. 65.	S/O '58 p42
Rt. 99 [US 99]	5/ O 50 p 12
Earlimart Bypass.	S/O '58 p39
Tulare Bypass	5/O 36 p37
	M/I '56 p20
Aerial view of bypass. J/F '54 p17;	M/J '56 p39
Official party at ribbon cutting ceremony.	J/F '54 p18
Tulare Bypass looking north.	J/F '54 p19
Traffic congestion in Tulare before completion of bypass.	J/F '54 p20
Looking east on Rt. 63 to Lindsay, which is carried over bypass.	J/F '54 p34
South end of bypass; Bypass near Paige Rd. overcrossing.	J/F '54 p34
Bypass near Rt 137 [Rt. 134] interchange. S/O '54 p1	
Completed structures and grading at Visalia Airport north of Tulare.	S/O '54 p3
Tipton Bypass.	S/O '58 p38
Rt. 190; relocated section at bridge across Tule Rvr. near Porterville.	S/O '59 p8
Pack mules working on freeway fencing job along Rt. 190.	M/A '60 p61
Rt. 198; Visalia [Rt. 10]	•
Mineral King Ave. divided highway	Jun '42 p10
Large, beautiful trees saved in construction of division strip.	Jun '42 p10
Curbed central island separating new 4-lane section from existing road.	Jun '42 p11
Easterly section of improvement.	Jun '42 p11
Mineral King Ave. handling heavy flow of traffic without congestion	· · · · · · ·
due to elimination of parking.	J/A '50 p6
Tuolumne Co.	on ropo
Rt. 49 (Mother Lode Hwy.)	
Section of realigned highway into Jamestown.	S '41 p19
Mother Lode vein exposed by highway cut.	S '41 p19
Rt. 108	5 41 p19
	I/E 464 m22
Heavy traffic on unimproved Twain Harte Grade section near Hunt's Camp.	J/F '64 p23
New highway fitted to sidehill above old road.	J/F '64 p23
Improved section at Soulsbyville Rd. near Mono Vista.	J/F '64 p24+
Rt. 120 [Leg. Rt. 40]; Big Oak Flat Hwy.	3.5/7./5440
Priests Grade, showing curve correction.	M/J '54 p40
Priests at top of Priests Grade county road.	M/J '54 p41+
Priests to Moccasin Creek, county road to Courterville.	M/J '54 p41+
Rt. 132 [Rt. 110], dirt road section, ca. 1938.	F '38 p14
Tuolumne-Sonora Rd. at Wards Ferry Rd., after improvement.	M/A '58 p22
Ventura Co.	
Rt. 1 [US 101-Alt.; Coast Route Hwy.]	
Section at Trancas Beach.	Jul '39 p15
Section near Big Sycamore Canyon.	Jul '39 p14
Section looking toward Oxnard near grade separation underpass with SP RR	J/A '52 p24
Section through Montalvo looking toward Santa Clara River Br, showing	-
business development along old highway.	J/A '52 p24
Completed section of highway through Montalvo.	J/A '52 p24, 26
	÷ ′

ROUTES Ventura Co., Continued Looking toward Ventura along completed highway. J/A '52 p25 J/A '52 p25 El Rio channelized intersection between US 101 and Rt. 1 [US 101-Alt.]. Section through Oxnard at intersection with Rt. 34 [Rt. 153] to Pt. Hueneme. J/F '57 p13 Right-of-way clearing in progress from Oxnard to Collegas Creek. J/F '57 p13 Rt. 33; Ojai Fwy. [US 399] Completed Ojai Fwy. near city of Ventura and Ventura Rvr. J/F '57 p14 Rt. 118 (Simi Valley Fwy.) Planned route through Santa Susana Pass. M/J '65 p50 Simi Valley girls detonating dynamite charge at ground-breaking. S/O '66 p30 Blast on mountainside which signaled beginning of celebration. S/O '66 p31 Color guard of Ventura Co. Independent Riders at celebration. S/O '66 p32 S/O '66 p32 Honored guests arriving by Conestoga Wagon. S/O '66 p33 Director of PW John Errca at ground-breaking. New high school built in valley. S/O '66 p35 S/O '66 p34+ Tapo Canyon, showing transition area between housing and agriculture. S/O '66 p34+ Simi Valley High School football team at practice. Construction work for new freeway, showing proximity to old route. S/O '66 p35 Rt. 126 [Rt. 79] Newly surfaced highway between Santa Paula and Sespe Ranch. O '37 p12 Stretch of new highway between Sespe Ranch and Fillmore. O '37 p12 Piru Creek-Los Angeles Co. line unit; portions of old and new road on realignment, eliminating curves between Castaic and Ventura. Apr '42 p7 Section under construction northward from Saticov to Santa Paula. M/A '64 p22 D '38 p3 Short sight distance and curves on highway near Santa Barbara Co. line. F '38 P14 Tortuous alignment on road near Santa Paula. US 101; Ventura Fwv. Completed section through Camarillo. J/F '56 p64 M/A '58 p30+ Conejo Grade section construction. J/F '58 p9; M/A '61 p21 Construction in progress in city of Ventura. N/D '61 p67 Clearing operations and construction for freeway through Ventura. Completed Ventura Fwy. through city of Ventura. M/A '64 p25 Section at Santa Barbara Co. line. M/A '64 p25 US 101 [Rt. 2, Coast Hwy.] Camarillo Fwy. just prior to dedication in March, 1954. J/A '54 p1 Central Ave-Santa Clara River unit Construction in vicinity of Rose Rd., old highway used as frontage road. M/J '55 p59 Nearly completed section showing eucalyptus windbreak. M/J '55 p59 Conejo Grade section South side of Conejo Summit looking west toward Oxnard and Ventura, showing existing highway, and realigned route in left foreground. Jan '37 p21 Conejo Summit-Conejo Creek section after realignment. Jan '37 p21 May '37 p9 Transportation Pageant at dedication. May '37 p9 Dedication ceremonies, showing new alignment and old highway. Deep cut in section of improved roadway. May '37 p9 New highway looking north toward Camarillo. May '37 p9 Early vintage Cadillac plowing though mud of unpaved US 101 ca. 1912. J/F '61 p3 Little Sycamore Canyon section looking toward L.A. Co. M/J '55 p34 M/J '55 p34 Channelization lane for Yerba Buena Road. Point Mugu with its point cut off by a safe modern highway. O '40 p12 O '40 p13 Blasting and excavation at cut through to Point Mugu. Old road around ocean end of mountain. O '40 p13

ROUTES Ventura Co. Continued

ROUTES Ventura Co., Continued	
Seacliff-Mussel Shoal unit	
Borrow pit and belt conveyor at westerly end of project.	J/F '49 p56
Left half of roadway to approximate final grade.	J/F '49 p57
Timber causeway near Mussel Shoal ca. 1926 before it was dismantled.	S/O '49 p11
Same location Aug., 1949 showing completed 4-lane divided highway	
and streamlined train running parallel to roadway.	S/O '49 p11
Section near Seacliff, showing storm damage of Oct. 18, 1934.	S/O '49 p11
Same location in Aug. 1949 showing 4-lane divided highway.	S/O '49 p11
Section looking toward Seacliff oil wells, showing storm damage	
of March 1, 1941.	S/O '49 p13
Same location after Oct. 18 1934 storm damage.	S/O '49 p13
Same view in Aug. 1949 showing completed divided highway.	S/O '49 p13
US 101 just south of Ventura-Santa Barbara Co. line, 1912.	M/A '60 p73
Same section, 1959.	M/A '60 p73
Yolo Co.	
Horse, horseless-carriage traffic on Winters-Davisville [Davis] Rd., early 1900s.	S/O '50 p73
I-5W under construction through farm land.	M/J '61 p39
I-80 [US 40]	
Davis; grading operations for four traffic lanes and division strip.	F '41 p25
Looking toward Davis from realigned section south of State Nursery.	Jul '41 p8
Resurfacing material windrowed in center of old highway from	T 1 / 11 0
point near State Nursery.	Jul '41 p9
Looking toward Davis, State Nursery at left.	Jul '41 p9
Six-lane section near Davis.	N/D '60 p39
Davis-Dixon cut-off, typical section of divided highway, partially completed.	O '42 p10
Fill and widening operations for divided highway south of Yolo Causeway.	Jul '41 p9
W. Sacramento Fwy. under construction showing West Acres Blvd.	
undercrossing, I-80/Rt. 84 [Rt. 6-99] separations, Davis Hwy. ramp	
overcrossing, W. Sacramento underpass, State Box and 3rd. St.	M/A '52 n27±
undercrossing, and west end of Tower Br Aerial view of completed West Sacramento Fwy.	M/A '53 p37+ J/A '54 p6
Yolo Bypass, construction underway across.	S/O '61 p7
Completed freeway section near Davis interchange.	S/O '61 p7
Construction on bridge-fill freeway crossing of Yolo Bypass.	N/D '61 p16
I-505 [Rt. 90] Dunnigan-Vacaville Cut-off under construction near Russell Blvd.	TVD of pro
Interchange and twin bridges over Putah Cr.	J/A '59 p3
Netherlands Rd. [FAS Rt. 1156]; Jefferson BlvdClarksburg link completed	3/11 37 p3
Section looking north from Rt. 99 near Greendale.	N/D '48 p50
Completed section near Greendale.	N/D '48 p51
Rt. 16; Woodland-Sacramento River Rd., Kiesel Crossing realignment.	N/D '52 p52
Rt. 128 [Rt. 6]; Monticello dam site area showing abandoned and relocated route.	M/A '55 p17
Yuba Co.	112/11 00 p1/
Rt. 20 [Rt. 15], Tahoe-Ukiah Hwy.	
Parks Bar BrNevada Co. line section before realignment.	S '37 p5
New highway approaches bridge with safe sight distance and curve.	S '37 p5
Section of newly completed highway.	S '37 p5
Rt. 65 [US 99E]	1
5th and E Streets, Marysville; compacting original ground prior to placing	
imported borrow on realigned approach to Feather River Br.	S/O '46 p24
Section of Rt. 65 [US 99E] before and after construction repair work.	S/O '45 p28+
Rt. 70, Marysville; section with median dividers and traffic storage lanes.	N/D '66 p29

ROUTES, Continued Routes By Number I-5

1-5	
Ridge Route [US 99]See also Kern Co. and Los Angeles Co.	
Section of Ridge Route before modernization; after modernization.	S/O '50 p79
Start of construction on Ridge Route.	S/O '50 p95
Mountain highway with concrete center barrier on Ridge Route.	S/O '50 p139
Same section after modernization.	S/O '50 p139
Westside Fwy.	
I-5 under construction along west side of San Joaquin Valley.	M/A '66 p39
Dept. of Water Resources subsidence test pond after 14 months of operation.	S/O '60 p53
After six months of operation.	S/O '60 p53
Shallow subsidence occasioned by a new abandoned irrigation ditch.	S/O '60 p53
Rt. 1 (Coast Hwy.); members of Joint Highway Dist. 9 finalizing 33-year-old	
cooperative project to modernize Rt. 1 between San Francisco and Santa Cruz.	M/A '61 p67
US 50	
Huge fallen boulder closes US 50; ca 1930s, location unknown.	J/A '60 p55
Old woodcut of Emigrant Wagon Rd. in 1865 from Albert D. Richardson's	
book Beyond the Mississippi, published in 1867.	S '41 p3
US 101; Redwood Hwy.	
Hazardous line and grade crossing on US 101. (Dist 5)	O '38 p1
Old Bell Springs route, the only route from the 1870s to ca. 1920.	J/A '64 p24
Trucks transporting loads of hay for mules and horses during Redwood Hwy.	
modernization, ca. 1920s.	J/A '64 p248
Unidentified divided highway section.	Apr '42 p11
SAFETYSee also ACCIDENTS; SIGNS	
Curbs	
Reflecting curbs, drawing of new type for intersectional islands, division strips.	D '37 p8
Wedged shaped recess for separation strip curbs.	D '37 p8+
Block-type recess under direct headlight rays.	D '37 p8+
Types of curbs; Section of standard conventional curb.	D '37 p9
Barrier curb study test driver shows safety features of test car.	M/J '54 p34
General operations used to conduct curb test program.	M/J '54 p36
	-
Precast curbs	
	J/A '55 p35
Precast curbs	J/A '55 p35 J/A '55 p35
Precast curbs Spreading mortar for curb section.	-
Precast curbs Spreading mortar for curb section. Leveling device for truing up curb.	J/A '55 p35
Precast curbs Spreading mortar for curb section. Leveling device for truing up curb. Typical curb nose (day) before improvement; Same location, night view.	J/A '55 p35 J/A '55 p36
Precast curbs Spreading mortar for curb section. Leveling device for truing up curb. Typical curb nose (day) before improvement; Same location, night view. Day view of curb nose after installation; Night view of same.	J/A '55 p35 J/A '55 p36 J/A '55 p37
Precast curbs Spreading mortar for curb section. Leveling device for truing up curb. Typical curb nose (day) before improvement; Same location, night view. Day view of curb nose after installation; Night view of same. Unloading curb sections.	J/A '55 p35 J/A '55 p36 J/A '55 p37 J/A '55 p38
Precast curbs Spreading mortar for curb section. Leveling device for truing up curb. Typical curb nose (day) before improvement; Same location, night view. Day view of curb nose after installation; Night view of same. Unloading curb sections. Driving anchor steel for center divider; Setting section of center divider.	J/A '55 p35 J/A '55 p36 J/A '55 p37 J/A '55 p38
Precast curbs Spreading mortar for curb section. Leveling device for truing up curb. Typical curb nose (day) before improvement; Same location, night view. Day view of curb nose after installation; Night view of same. Unloading curb sections. Driving anchor steel for center divider; Setting section of center divider. Employee Safety	J/A '55 p35 J/A '55 p36 J/A '55 p37 J/A '55 p38
Precast curbs Spreading mortar for curb section. Leveling device for truing up curb. Typical curb nose (day) before improvement; Same location, night view. Day view of curb nose after installation; Night view of same. Unloading curb sections. Driving anchor steel for center divider; Setting section of center divider. Employee Safety Drivers' safety program	J/A '55 p35 J/A '55 p36 J/A '55 p37 J/A '55 p38 J/A '55 p35
Precast curbs Spreading mortar for curb section. Leveling device for truing up curb. Typical curb nose (day) before improvement; Same location, night view. Day view of curb nose after installation; Night view of same. Unloading curb sections. Driving anchor steel for center divider; Setting section of center divider. Employee Safety Drivers' safety program Telebinocular for testing a driver's vision. Double cartridge braking detonator in operation. Division of Hwys. electrical timing device with parked testing car.	J/A '55 p35 J/A '55 p36 J/A '55 p37 J/A '55 p38 J/A '55 p35
Precast curbs Spreading mortar for curb section. Leveling device for truing up curb. Typical curb nose (day) before improvement; Same location, night view. Day view of curb nose after installation; Night view of same. Unloading curb sections. Driving anchor steel for center divider; Setting section of center divider. Employee Safety Drivers' safety program Telebinocular for testing a driver's vision. Double cartridge braking detonator in operation.	J/A '55 p35 J/A '55 p36 J/A '55 p37 J/A '55 p38 J/A '55 p35 J/A '54 p38 J/A '54 p40
Precast curbs Spreading mortar for curb section. Leveling device for truing up curb. Typical curb nose (day) before improvement; Same location, night view. Day view of curb nose after installation; Night view of same. Unloading curb sections. Driving anchor steel for center divider; Setting section of center divider. Employee Safety Drivers' safety program Telebinocular for testing a driver's vision. Double cartridge braking detonator in operation. Division of Hwys. electrical timing device with parked testing car. Roadside workers Surveyor W.C. Names and painted level tripod in use in District 9.	J/A '55 p35 J/A '55 p36 J/A '55 p37 J/A '55 p38 J/A '55 p35 J/A '54 p38 J/A '54 p40
Precast curbs Spreading mortar for curb section. Leveling device for truing up curb. Typical curb nose (day) before improvement; Same location, night view. Day view of curb nose after installation; Night view of same. Unloading curb sections. Driving anchor steel for center divider; Setting section of center divider. Employee Safety Drivers' safety program Telebinocular for testing a driver's vision. Double cartridge braking detonator in operation. Division of Hwys. electrical timing device with parked testing car. Roadside workers Surveyor W.C. Names and painted level tripod in use in District 9. Survey crew demonstrating the "Buddy System."	J/A '55 p35 J/A '55 p36 J/A '55 p37 J/A '55 p38 J/A '55 p35 J/A '54 p38 J/A '54 p40 J/A '54 p41 N '37 p25 J/A '59 p35
Precast curbs Spreading mortar for curb section. Leveling device for truing up curb. Typical curb nose (day) before improvement; Same location, night view. Day view of curb nose after installation; Night view of same. Unloading curb sections. Driving anchor steel for center divider; Setting section of center divider. Employee Safety Drivers' safety program Telebinocular for testing a driver's vision. Double cartridge braking detonator in operation. Division of Hwys. electrical timing device with parked testing car. Roadside workers Surveyor W.C. Names and painted level tripod in use in District 9. Survey crew demonstrating the "Buddy System." Traffic on freeway inlet stopped while surveying operations are in progress.	J/A '55 p35 J/A '55 p36 J/A '55 p37 J/A '55 p38 J/A '55 p35 J/A '54 p38 J/A '54 p40 J/A '54 p41 N '37 p25 J/A '59 p35 J/A '59 p37
Precast curbs Spreading mortar for curb section. Leveling device for truing up curb. Typical curb nose (day) before improvement; Same location, night view. Day view of curb nose after installation; Night view of same. Unloading curb sections. Driving anchor steel for center divider; Setting section of center divider. Employee Safety Drivers' safety program Telebinocular for testing a driver's vision. Double cartridge braking detonator in operation. Division of Hwys. electrical timing device with parked testing car. Roadside workers Surveyor W.C. Names and painted level tripod in use in District 9. Survey crew demonstrating the "Buddy System." Traffic on freeway inlet stopped while surveying operations are in progress. Survey crewman demonstrates safe method of sharpening brush cutter blade.	J/A '55 p35 J/A '55 p36 J/A '55 p37 J/A '55 p38 J/A '55 p35 J/A '54 p38 J/A '54 p40 J/A '54 p41 N '37 p25 J/A '59 p35 J/A '59 p37 J/A '59 p38
Precast curbs Spreading mortar for curb section. Leveling device for truing up curb. Typical curb nose (day) before improvement; Same location, night view. Day view of curb nose after installation; Night view of same. Unloading curb sections. Driving anchor steel for center divider; Setting section of center divider. Employee Safety Drivers' safety program Telebinocular for testing a driver's vision. Double cartridge braking detonator in operation. Division of Hwys. electrical timing device with parked testing car. Roadside workers Surveyor W.C. Names and painted level tripod in use in District 9. Survey crew demonstrating the "Buddy System." Traffic on freeway inlet stopped while surveying operations are in progress. Survey crewman demonstrates safe method of sharpening brush cutter blade. Making movie to demonstrate proper safety procedure for roadside workers.	J/A '55 p35 J/A '55 p36 J/A '55 p37 J/A '55 p38 J/A '55 p35 J/A '54 p38 J/A '54 p40 J/A '54 p41 N '37 p25 J/A '59 p35 J/A '59 p37 J/A '59 p38 J/A '66 p8
Precast curbs Spreading mortar for curb section. Leveling device for truing up curb. Typical curb nose (day) before improvement; Same location, night view. Day view of curb nose after installation; Night view of same. Unloading curb sections. Driving anchor steel for center divider; Setting section of center divider. Employee Safety Drivers' safety program Telebinocular for testing a driver's vision. Double cartridge braking detonator in operation. Division of Hwys. electrical timing device with parked testing car. Roadside workers Surveyor W.C. Names and painted level tripod in use in District 9. Survey crew demonstrating the "Buddy System." Traffic on freeway inlet stopped while surveying operations are in progress. Survey crewman demonstrates safe method of sharpening brush cutter blade.	J/A '55 p35 J/A '55 p36 J/A '55 p37 J/A '55 p38 J/A '55 p35 J/A '54 p38 J/A '54 p40 J/A '54 p41 N '37 p25 J/A '59 p35 J/A '59 p37 J/A '59 p38

SAFETY, Continued Safety supervisor with two employees who escaped serious injury in unrelated construction accidents. M/A '55 p58 Welder wearing safety glasses which saved him from serious eye injury. S/O '64 p66 Governor Knight's Traffic Safety Committee in session, 1956. M/A '56 p58 **Guard Rails** Guard rail fabricated for curve and difference in elevation of two roadways. Jul '42 p12 Turning movements restricted by use of metal guard rail at intersection. Jul '42 p12 Types of flared guard railing used at bridge approach. M/A '54 p54+ Guard rails installed to prevent collisions with trees (US 101, Leucadia). N/D '54 p24, 63 Lighting S '39 p17 Divisional island lighting equipment by day and by night. Fluorescent luminaire showing details of reflector. M/J '50 p50 Fluorescent luminaries at Stockton Blvd. and Fruitridge Rd., Sacramento, showing non-glare appearance when illuminated. M/J '50 p50 Daytime view at intersection of Stockton Blvd. and Fruitridge Rd. M/J '50 p51 Fluorescent street lights specially designed for wet climates in place at intersection on US 101 in Arcata, Humboldt Co. M/A '55 p50+ Freeway lighting standards with new-style tapered curve. N/D '65 p46 Pedestrian under/overcrossings Fluorescent lights installed inside East 3rd. St. Ped. Undercrossing, Benicia. M/J '62 p39 Close-up of fluorescent fixture. M/J '62 p41 Night view of lighting inside Miner Ave. Ped. Undercrossing, Stockton prior to installation of fluorescent fixtures. M/J '62 p42 Night view after installation of fluorescent fixtures. M/J '62 p43 N/D '65 p49 Old-style lighting poles in pedestrian overcrossing. In-the-railing fluorescent lighting fixtures installed on pedestrian overcrossing. N/D '65 p48 Night view of pedestrian overcrossing lighted by new fluorescent fixtures. J/F '66 p46 New fluorescent luminaire unit in chain link sidewalk railing. J/F '66 p47 Pedestrian overcrossing with old-style luminaries mounted on standards. J/F '66 p4 Tweedy Lane pedestrian overcrossing in L.A. with fluorescent luminaries. J/F '66 p47 Condulet fitting on end post of chain link railing on pedestrian overcrossing J/F '66 p47 **Median Barriers** Concrete center barrier for traffic protection on Ridge Route section of I-5 [US 99]. M/A '47 p31 Median barrier on Bayshore [James Lick] Fwy. in San Francisco, classified as non-traversable in median safety study. J/A '59 p51 Curbed center strip on Hollywood Fwy., one of the deterring median designs included in safety study. J/A '59 p51 **Barrier testing** J/A '59 p9 34-passenger bus test-crashed into chain link barrier. Test-car crashes with guard rail. J/A '59 p15+ Prize-winning photo of barrier-test car demonstrating the necessity of isolating anchorages used for chain link barrier fences. M/A '61 p72 Beam barrier on heavily-traveled unit of I-880 (Nimitz Fwy., Alameda Co.). S/O '61 p18 Cable barrier section on Nimitz Fwy. near San Leandro. S/O '61 p18 S/O '61 p21 Close-up of blocked-out beam barrier on Santa Ana Fwy. (L.A. Co.). Section of beam barrier being installed on Santa Ana Fwy. S/O '61 p22 Repairing damaged cable barrier on Santa Ana Fwy. S/O '61 p22 Radio controlled car crashing into barrier at 80 MPH. N/D '61 p31

N/D '65 p10

Chain-link fence forms protective barrier on freeway overcrossing.

SAFETY Continued

Glass beads mixed with traffic-stripe paint Visibility at night of traffic line with and without beads. Detail of beads dropping from spoon. Striping machine and hopper attachment through which beads are sprayed on wet paint of stripe. Magnified view of glass beads used in traffic paint. Magnified view of glass beads used in traffic paint. Magnified view of glass beads used in traffic paint. Mine Strips in use; night view of pavement lane markings. Rised buttons at night under headlight illumination in clear and rainy weather. Experimental traffic control markings on Colorado Blvd. [St.] in Pasadena. "Botts Dots," various kinds of wedge and circular markers tested. 1-80 in Solano Co. shown with markers on a rainy day and at night. Reflectorized pavement markers adopted for California highways during 1966. Improved type of painted pavement arrow. Safety study, movie camera mounted to windshield and operated by push button. Same untersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection. Same untersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Westly drill for safety patrols in progress at Columbus School, Berkeley. Sudents of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. Jif '55 p2 Safety patrol members in rain gear. Washington School safety patrol, San Diego, hold stop signs at intersection. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Jif '55 p7 Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Jif '67 p39 Three-lane test site, Bayshore Fuy, (US 101). Traffic Bars Raised white bars placed at intersections,	SAFETY, Continued	
Visibility at night of traffic line with and without beads. Detail of beads dropping from spoon. Striping machine and hopper attachment through which beads are sprayed on wet paint of stripe. Magnifed view of glass beads used in traffic paint. Magnifed view of glass beads used in traffic paint. Manifed view of glass beads used in traffic paint. M/A '58 p40 Temporary traffic strips to delineate traffic lane being placed; Close-up of strips. Strips in use; night view of pavement lane markings. Raised buttons at night under headlight illumination in clear and rainy weather. Poor visibility of painted line in rainy weather. Experimental traffic control markings on Colorado Blvd. [St.] in Pasadena. "Botts Dots," various kinds of wedge and circular markers tested. M/A '66 p25 Reflectorized pavement markers adopted for California highways during 1966. I-80 in Solano Co. shown with markers on a rainy day and at night. MrD '66 p16 Safety study; movic camera mounted to windshield and operated by push button. School safety patrols First safety patrol (Berkeley, 1923) at San Pablo Ave./Virginia St. intersection. School safety patrols First safety patrol (Berkeley, 1923) at San Pablo Ave./Virginia St. intersection. Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weshly drill for safety patrols in progress at Columbus School, Berkeley. Washington School safety patrols, San Diego, hold stop signs at intersection. Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Three-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore	Pavement Markings	
Detail of beads dropping from spoon. Striping machine and hopper attachment through which beads are sprayed on wet paint of stripe. Magnified view of glass beads used in traffic paint. Temporary traffic strips to delineate traffic lane being placed; Close-up of strips. Strips in use; night view of pavement lane markings. Raised buttons at night under headlight illumination in clear and rainy weather. Poor visibility of painted line in rainy weather. Poor visibility of painted line in rainy weather. 180 in Solano Co. shown with markers on Colorado Blvd. [St.] in Pasadena. "Botts Dots," various kinds of wedge and circular markers tested. 180 in Solano Co. shown with markers on a rainy day and at night. Reflectorized pavement markers adopted for California highways during 1966. Improved type of painted pavement arrow. N/D '66 p15 Safety study; movie camera mounted to windshield and operated by push button. School safety patrols First safety patrol (Berkeley, 1923) at San Pablo Ave,/Virginia St. intersection. School safety patrols First safety patrol (Berkeley, 1923) at San Pablo Ave,/Virginia St. intersection. School safety patrol Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weshipton School safety patrols in progress at Columbus School, Berkeley. Weshipton School safety patrols in progress at Columbus School, Berkeley. Weshipton School safety patrols in progress at Columbus School, Berkeley. Weshipton School safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Paced limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Traffic Bars Raised white bars placed in advance of safety zones adjacent to streetcar track. Asphalt concrete bars pla	Glass beads mixed with traffic-stripe paint	Jan '41 p17
Detail of beads dropping from spoon. Striping machine and hopper attachment through which beads are sprayed on wet paint of stripe. Magnified view of glass beads used in traffic paint. Temporary traffic strips to delineate traffic lane being placed; Close-up of strips. Strips in use; night view of pavement lane markings. Raised buttons at night under headlight illumination in clear and rainy weather. Poor visibility of painted line in rainy weather. Poor visibility of painted line in rainy weather. Experimental traffic control markings on Colorado Blvd. [St.] in Pasadena. "Botts Dots," various kinds of wedge and circular markers tested. I-80 in Solano Co. shown with markers on a rainy day and at night. Reflectorized pavement markers adopted for California highways during 1966. Improved type of painted pavement arrow. N/D '66 p15 Safety study; movie camera mounted to windshield and operated by push button. School safety patrols First safety patrol (Berkeley, 1923) at San Pablo Ave,/Virginia St. intersection. School safety patrols First safety patrol (Berkeley, 1923) at San Pablo Ave,/Virginia St. intersection. School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weshly drill for safety patrols in progress at Columbus School, Berkeley. Weshly drill for safety patrols in progress at Columbus School, Berkeley. Weshly drill for safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Traffic Bars Raised white bars placed in advance of safety zones adjacent to streetcar track. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. N '42 p1	Visibility at night of traffic line with and without beads.	Jan '41 p17
Striping machine and hopper attachment through which beads are sprayed on wet paint of stripe. Magnified view of glass beads used in traffic paint. Temporary traffic strips to delineate traffic lane being placed; Close-up of strips. Strips in use; night view of pavement lane markings. M/A '54 p48 Raised buttons at night under headlight illumination in clear and rainy weather. Poor visibility of painted line in rainy weather. Experimental traffic control markings on Colorado Blvd. [St.] in Pasadena. "Botts Dots," various kinds of wedge and circular markers tested. 1-80 in Solano Co. shown with markers on a rainy day and at night. Reflectorized pavement markers adopted for California highways during 1966. Improved type of painted pavement arrow. School safety patrols First safety patrol (Berkeley, 1923) at San Pablo Ave,/Virginia St. intersection. Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Safety patrol members in rain gear. Washington School safety patrols, San Diego, hold stop signs at intersection. Sudents of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. San Francisco area safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Traeffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. Asphalt concrete ba		
sprayed on wet paint of stripe. Magnified view of glass beads used in traffic paint. Temporary traffic strips to delineate traffic lane being placed; Close-up of strips. Strips in use; night view of pavement lane markings. Raised buttons at night under headlight illumination in clear and rainy weather. Poor visibility of painted line in rainy weather. Holy 155 p.22 Experimental traffic control markings on Colorado Blvd. [St.] in Pasadena. "Botts Dots," various kinds of wedge and circular markers tested. I-80 in Solano Co. shown with markers on a rainy day and at night. Reflectorized pavement markers adopted for California highways during 1966. Improved type of painted pavement arrow. ND 66 p15 Safety study; movie camera mounted to windshield and operated by push button. School safety patrols First safety patrol (Berkeley, 1923) at San Pablo Ave./Virginia St. intersection. Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weekly drill for safety patrols in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. San Francisco area safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Traffic analyzer vehicle; Interior view of vehicle. Traffic analyzer vehicle; Interior view		1
Magnified view of glass beads used in traffic paint. Temporary traffic strips to delineate traffic lane being placed; Close-up of strips. Strips in use; night view of pavement lane markings. Raised buttons at night under headlight illumination in clear and rainy weather. Poor visibility of painted line in rainy weather. Poor visibility of painted line in rainy weather. Botts Dots," various kinds of wedge and circular markers tested. Hold in Solano Co. shown with markers on a rainy day and at night. Raised bridge pavement markers adopted for California highways during 1966. Improved type of painted pavement arrow. School safety patrols First safety patrol (Berkeley, 1923) at San Pablo Ave./Virginia St. intersection. Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Washington School safety patrol, San Diego, hold stop signs at intersection. Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. JrF '55 pd Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Traffic analyzer vehicle; Interior view of vehicle. Traffic analyzer vehicle; Interior view of vehicle. Traffic analyzer vehicle; Interior view of vehicle. Traffic analyzer vehicle; Interior of vehicle. Traffic analyzer vehicle; Interior of vehicle. Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in nadvance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ne		Jan '41 p17
Temporary traffic strips to delineate traffic lane being placed; Close-up of strips. Strips in use; night view of pavement lane markings. Raised buttons at night under headlight illumination in clear and rainy weather. Poor visibility of painted line in rainy weather. Experimental traffic control markings on Colorado Blvd. [St.] in Pasadena. "Botts Dots," various kinds of wedge and circular markers tested. L80 in Solano Co. shown with markers on a rainy day and at night. Reflectorized pavement markers adopted for California highways during 1966. Improved type of painted pavement arrow. School safety study; movie camera mounted to windshield and operated by push button. School safety patrols First safety patrol (Berkeley, 1923) at San Pablo Ave./Virginia St. intersection. Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weshly drill for safety patrols in progress at Columbus School, Berkeley. Weshly drill for safety patrols in progress at Columbus School, Berkeley. Weshly drill for safety patrols in progress at Columbus School, Berkeley. Weshly drill for safety patrols in progress at Columbus School, Berkeley. Weshly drill for safety patrols in progress at Columbus School, Berkeley. Weshly drill for safety patrols in progress at Columbus School, Berkeley. Weshly drill for safety patrols in progress at Columbus School, Berkeley. Weshly drill for safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of riight delineation of roadsides. Bale School School Safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental placet of riight delineation of roadsides. Bale School		
Strips in use; night view of pavement lane markings. Raised buttons at night under headlight illumination in clear and rainy weather. Poor visibility of painted line in rainy weather. Poor visibility of painted line in rainy weather. Poor visibility of painted line in rainy weather. Rotts Dots," various kinds of wedge and circular markers tested. M/A '66 p26 L-80 in Solano Co. shown with markers on a rainy day and at night. M/A '66 p27 Reflectorized pavement markers adopted for California highways during 1966. Improved type of painted pavement arrow. Sariety study; movie camera mounted to windshield and operated by push button. Sariety study; movie camera mounted to windshield and operated by push button. Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection. Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Wesh patrol members in rain gear. Washington School safety patrol, San Diego, hold stop signs at intersection. Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of inght delineation of roadsides. Freflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Tyf' 67 p39 Three-lane test site, Rayshore Fwy. (I-180). Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. N'42 p17 City Engineer Klassen of Daly City, who devised method. N'42 p18 Looking north on Van Ness Ave fro		
Raised buttons at night under headlight illumination in clear and rainy weather. Poor visibility of painted line in rainy weather. Experimental traffic control markings on Colorado Blvd. [St.] in Pasadena. "Botts Dots," various kinds of wedge and circular markers tested. 1-80 in Solano Co. shown with markers on a rainy day and at night. M/A '66 p26 Reflectorized pavement markers adopted for California highways during 1966. Improved type of painted pavement arrow. Safety study; movie camera mounted to windshield and operated by push button. Sare intersection, 1954. Lincoln School patrol (Berkeley, 1923) at San Pablo Ave./Virginia St. intersection. Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Washington School safety patrol, San Diego, hold stop signs at intersection. Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. J/F '55 p4 Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. J/F '55 p5 Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Traffic analyzer vehicle; Interior view of vehicle. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Constructing raised ba		
Poor visibility of painted line in rainy weather. Experimental traffic control markings on Colorado Blvd. [St.] in Pasadena. "Botts Dots," various kinds of wedge and circular markers tested. I-80 in Solano Co. shown with markers on a rainy day and at night. Reflectorized pavement markers adopted for California highways during 1966. Improved type of painted pavement arrow. N/D '66 p15 Improved type of painted pavement arrow. School safety patrols First safety patrol (Berkeley, 1923) at San Pablo Ave./Virginia St. intersection. Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weekly drill for safety patrols, San Diego, hold stop signs at intersection. Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Casting carriage for raised bars. Casting carriage for raised bars. Casting carriage for raised bars. Casting carriage in operation. Traffic analyzer reported channelization at medial divider ends. Casting carriage in operation.		
Experimental traffic control markings on Colorado Blvd. [St.] in Pasadena. "Botts Dots," various kinds of wedge and circular markers tested. I-80 in Solano Co. shown with markers on a rainy day and at night. M/A '66 p26 Reflectorized pavement markers adopted for California highways during 1966. Improved type of painted pavement arrow. Safety study; movie camera mounted to windshield and operated by push button. School safety patrols First safety patrol (Berkeley, 1923) at San Pablo Ave./Virginia St. intersection. Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. J/F '55 p2 Weekly drill for safety patrols in progress at Columbus School, Berkeley. J/F '55 p2 Safety patrol members in rain gear. Washington School safety patrol, San Diego, hold stop signs at intersection. Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. San Francisco area safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Tra-67 p39 Four-lane test site, Roseville Fwy. (I-80). Traffic analyzer vehicle; Interior view of vehicle. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. City Engineer Klassen of Daly City, who devised method. Coking north on Van Ness Ave from corner of Pacific Ave. City Engineer Klassen of Daly City, who devised method. Costing carriage for raised bars. N '42 p17 Costing carriage for raised bars. N '42 p18 Compl		-
"Botts Dots," various kinds of wedge and circular markers tested. I-80 in Solano Co. shown with markers on a rainy day and at night. Reflectorized pavement markers adopted for California highways during 1966. Improved type of painted pavement arrow. Safety study; movie camera mounted to windshield and operated by push button. Sethool safety patrols First safety patrol (Berkeley, 1923) at San Pablo Ave, Virginia St. intersection. Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Jif '55 p2 Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Jif '55 p2 Safety patrol members in rain gear. Washington School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. Jif '55 p6 Safety patrol safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Jan '39 p19 Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore Fwy. (US 101). Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed are in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Casting carriage for raised bars. N '42 p18 Looking south toward Jackson St. C		
I-80 in Solano Co. shown with markers on a rainy day and at night. Reflectorized pavement markers adopted for California highways during 1966. Improved type of painted pavement arrow. School safety patrols First safety patrol (Berkeley, 1923) at San Pablo Ave./Virginia St. intersection. Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Washington School safety patrol, San Diego, hold stop signs at intersection. Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. N '42 p17 Cooking north on Van Ness Ave from corner of Pacific Ave. Completed traffic bars on pavement. Casting carriage for raised bars. Casting carriage for raised bars. N '42 p18 Robert Traming and of recently cast bar; Side view of casting carriage. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage.		
Reflectorized pavement markers adopted for California highways during 1966. N/D '66 p15 Improved type of painted pavement arrow. Safety study; movie camera mounted to windshield and operated by push button. School safety patrols First safety patrol (Berkeley, 1923) at San Pablo Ave./Virginia St. intersection. J/F '55 p1 Same intersection, 1954. J/F '55 p2 Weekly drill for safety patrols in progress at Columbus School, Berkeley. J/F '55 p2 Weekly drill for safety patrols in progress at Columbus School, Berkeley. J/F '55 p2 Safety patrol members in rain gear. J/F '55 p2 Safety patrol members in rain gear. J/F '55 p2 Safety patrol members in rain gear. J/F '55 p4 Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. J/F '55 p6 San Francisco area safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Jan '39 p19 Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. J/F '67 p38 Two-lane test site, Roseville Fwy. (I-80). J/F '67 p39 Three-lane test site, Bayshore Fwy. (US 101). J/F '67 p39 Traffic analyzer vehicle; Interior view of vehicle. J/F '67 p39 Traffic analyzer vehicle; Interior view of vehicle. J/F '67 p39 Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. D/40 p5 Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. N/42 p17 Looking south toward Jackson St. N/42 p17 Looking north on Van Ness Ave from corner of Pacific Ave. N/42 p18 Raised white bars provide channelization at medial divider ends. Apr '42 p8 Completed traffic bars on pavement. J/A '52 p19 Casting carriage for raised bars. N/42 p18 J/A '52 p19 Proportioning and mixing machine mounted on truck. Applyi		
Improved type of painted pavement arrow. Safety study; movie camera mounted to windshield and operated by push button. School safety patrols First safety patrol Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection. Berkeley. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. J/F '55 p2 Safety patrol members in rain gear. Washington School safety patrol, San Diego, hold stop signs at intersection. Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. J/F '55 p6 San Francisco area safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Jan '39 p19 Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. J/F '67 p38 Two-lane test site, Roseville Fwy. (I-80). Traffic analyzer vehicle; Interior view of vehicle. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. N '42 p17 Looking north on Van Ness Ave from corner of Pacific Ave. Completed traffic bars on pavement. Casting carriage for raised bars. N '42 p18 Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Casting carriage for raised bars. N '42 p18 Constructing raised bars. N '42 p18 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Applying cementing agent to pavement immediately ahead		
Safety study; movie camera mounted to windshield and operated by push button. School safety patrols First safety patrol (Berkeley, 1923) at San Pablo Ave./Virginia St. intersection. Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. J/F '55 p2 Weekly drill for safety patrols in progress at Columbus School, Berkeley. J/F '55 p2 Washington School safety patrol, San Diego, hold stop signs at intersection. Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. San Francisco area safety patrols in action. J/F '55 p7 Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Jan '39 p19 Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore Fwy. (US 101). Four-lane test site, Bayshore Fwy. (US 101). J/F '67 p39 Traffic analyzer vehicle; Interior view of vehicle. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. City Engineer Klassen of Daly City, who devised method. Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Constructing raised bars. Casting carriage for raised bars. N '42 p18 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Casting carriage in operation.		-
First safety patrol (Berkeley, 1923) at San Pablo Ave./Virginia St. intersection. Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. J/F '55 p2 Safety patrol members in rain gear. Washington School safety patrol, San Diego, hold stop signs at intersection. Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. J/F '55 p6 San Francisco area safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Jan '39 p19 Reflectorized sight posts at night. Jan '39 p19 Reflectorized sight posts at night. Jan '39 p19 Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Tree-lane test site, Bayshore Fwy. (US 101). J/F '67 p39 Traffic analyzer vehicle; Interior view of vehicle. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Casting carriage for raised bars. N '42 p18 Constructing raised bars. N '42 p18 Casting carriage for raised bars. N '42 p17 Casting carriage in operation. Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p21 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage.		-
First safety patrol (Berkeley, 1923) at San Pablo Ave./Virginia St. intersection. Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Safety patrol members in rain gear. Washington School safety patrol, San Diego, hold stop signs at intersection. J/F '55 p3 Washington School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. J/F '55 p6 San Francisco area safety patrols in action. J/F '55 p7 Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Jan '39 p19 Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. J/F '67 p38 Two-lane test site, Roseville Fwy. (I-80). Traffice analyzer vehicle; Interior view of vehicle. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. N '42 p17 Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Constructing raised bars. N '42 p18 Casting carriage for raised bars. N '42 p17 Casting carriage for raised bars. N '42 p17 Casting carriage for raised bars. N '42 p17 Casting carriage in operation. J/A '52 p21 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage.		Juli 39 p19
Same intersection, 1954. Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. J/F '55 p2 Safety patrol members in rain gear. Washington School safety patrol, San Diego, hold stop signs at intersection. J/F '55 p4 Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. San Francisco area safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Jan '39 p19 Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore Fwy. (US 101). Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. City Engineer Klassen of Daly City, who devised method. City Engineer Klassen of Daly City, who devised method. City Engineer Klassen of Daly City, who devised method. Costing south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Casting carriage for raised bars. Casting carriage for raised bars. N '42 p18 Proportioning and mixing machine mounted on truck. Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Casting carriage in operation. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage.		I/E '55 m1
Lincoln School patrol and students at Ashby St./King St. intersection, Berkeley. Weekly drill for safety patrols in progress at Columbus School, Berkeley. Safety patrol members in rain gear. Washington School safety patrol, San Diego, hold stop signs at intersection. J/F '55 p3 Washington School safety patrol, San Diego, hold stop signs at intersection. J/F '55 p4+ Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. San Francisco area safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Jan '39 p19 Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Tro-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore Fwy. (US 101). Four-lane test site, Harbor Fwy. (I-110). Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. N '42 p17 Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Casting carriage for raised bars. N '42 p18 Completed traffic bars on pavement. Casting carriage for raised bars. N '42 p18 Casting carriage for raised bars. N '42 p18 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage.		
Weekly drill for safety patrols in progress at Columbus School, Berkeley. Safety patrol members in rain gear. Washington School safety patrol, San Diego, hold stop signs at intersection. Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. J/F '55 p6 San Francisco area safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Jan '39 p19 Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore Fwy. (US 101). Four-lane test site, Harbor Fwy. (I-110). Traffic analyzer vehicle; Interior view of vehicle. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. City Engineer Klassen of Daly City, who devised method. N '42 p17 Looking north on Van Ness Ave from corner of Pacific Ave. N '42 p18 Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Casting carriage for raised bars. Casting carriage for raised bars. N '42 p17 Casting carriage for raised bars. N '42 p17 Casting carriage in operation. J/F '55 p4 J/F '55 p6 J/F '55 p7 Sight post, reflectorized, on US in the delineation of roadsides. Jan '39 p19 Jan '3		
Safety patrol members in rain gear. Washington School safety patrol, San Diego, hold stop signs at intersection. Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. San Francisco area safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore Fwy. (US 101). Four-lane test site, Harbor Fwy. (I-110). Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. N '42 p17 Looking north on Van Ness Ave from corner of Pacific Ave. N '42 p18 Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Casting carriage for raised bars. Casting carriage for raised bars. N '42 p17 Casting carriage for raised bars. N '42 p18 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Casting carriage in operation. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage.		
Washington School safety patrol, San Diego, hold stop signs at intersection. Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. San Francisco area safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore Fwy. (US 101). Four-lane test site, Harbor Fwy. (I-110). Traffic analyzer vehicle; Interior view of vehicle. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Casting carriage for raised bars. N '42 p18 Casting carriage for raised bars. N '42 p18 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage.		
Students of Davis School, Stockton waiting in dividing strip on Rt. 99 [US 50-99] until patrol leaders give safety clearance. San Francisco area safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Reflectorized sight posts at night. Jan '39 p19 Reflectorized sight posts at night. Jan '39 p19 Reflectorized sight posts at night. Jan '39 p19 Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore Fwy. (US 101). Four-lane test site, Harbor Fwy. (I-110). Traffic analyzer vehicle; Interior view of vehicle. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. N '42 p17 Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Constructing raised bars. N '42 p18 Constructing raised bars. N '42 p18 Casting carriage for raised bars. N '42 p18 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p21		
[US 50-99] until patrol leaders give safety clearance. San Francisco area safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore Fwy. (US 101). Four-lane test site, Harbor Fwy. (I-110). Traffic analyzer vehicle; Interior view of vehicle. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Constructing raised bars. Casting carriage for raised bars. N '42 p18 Casting carriage for raised bars. N '42 p17 Casting carriage in operation. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p21		J/F 33 p4+
San Francisco area safety patrols in action. Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore Fwy. (US 101). Four-lane test site, Harbor Fwy. (I-110). Traffic analyzer vehicle; Interior view of vehicle. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. N '42 p17 Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Casting carriage for raised bars. N '42 p18 Casting carriage for raised bars. N '42 p18 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage.		I/E 555(
Sight post, reflectorized, on US 101 between South S.F. and Burlingame, being used in experimental test of night delineation of roadsides. Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore Fwy. (US 101). Four-lane test site, Harbor Fwy. (I-110). Traffic analyzer vehicle; Interior view of vehicle. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Casting carriage for raised bars. N '42 p17 Casting carriage for raised bars. N '42 p18 Proportioning and mixing machine mounted on truck. Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Casting carriage in operation. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p22		-
Reflectorized sight posts at night. Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore Fwy. (US 101). Four-lane test site, Harbor Fwy. (I-110). Traffic analyzer vehicle; Interior view of vehicle. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Casting carriage for raised bars. N '42 p17 Casting carriage for raised bars. N '42 p18 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Casting carriage in operation. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p22		J/F '55 p/
Reflectorized sight posts at night. Speed limits; minimum speed limits tested Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore Fwy. (US 101). Four-lane test site, Harbor Fwy. (I-110). Traffic analyzer vehicle; Interior view of vehicle. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Constructing raised bars. N '42 p17 Casting carriage for raised bars. N '42 p18 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Casting carriage in operation. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p22		T (20 10
Installing tape-switch indicator for recording speeds and time of day. Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore Fwy. (US 101). Four-lane test site, Harbor Fwy. (I-110). Traffic analyzer vehicle; Interior view of vehicle. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Constructing raised bars. N '42 p17 Casting carriage for raised bars. N '42 p18 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Casting carriage in operation. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p22		-
Installing tape-switch indicator for recording speeds and time of day. Two-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore Fwy. (US 101). Four-lane test site, Harbor Fwy. (I-110). Traffic analyzer vehicle; Interior view of vehicle. J/F '67 p39 Traffic analyzer vehicle; Interior view of vehicle. J/F '67 p40 Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Casting carriage for raised bars. N '42 p18 Constructing raised bars. N '42 p17 Casting carriage for raised bars. N '42 p18 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Casting carriage in operation. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p22		Jan 39 p19
Two-lane test site, Roseville Fwy. (I-80). Three-lane test site, Bayshore Fwy. (US 101). Four-lane test site, Harbor Fwy. (I-110). Traffic analyzer vehicle; Interior view of vehicle. J/F '67 p39 Traffic analyzer vehicle; Interior view of vehicle. J/F '67 p40 Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Casting carriage for raised bars. N '42 p18 Proportioning and mixing machine mounted on truck. Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Casting carriage in operation. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p22		I/E ((7 20
Three-lane test site, Bayshore Fwy. (US 101). Four-lane test site, Harbor Fwy. (I-110). Traffic analyzer vehicle; Interior view of vehicle. J/F '67 p39 Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. N '42 p17 Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Apr '42 p8 Completed traffic bars on pavement. Casting carriage for raised bars. N '42 p17 Casting carriage for raised bars. N '42 p18 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Casting carriage in operation. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p22		-
Four-lane test site, Harbor Fwy. (I-110). Traffic analyzer vehicle; Interior view of vehicle. J/F '67 p39 Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. N '42 p17 Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Casting carriage for raised bars. N '42 p18 Constructing raised bars. N '42 p17 Casting carriage for raised bars. N '42 p18 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Casting carriage in operation. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p22		-
Traffic analyzer vehicle; Interior view of vehicle. Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. N '42 p17 Looking south toward Jackson St. N '42 p18 Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Constructing raised bars. N '42 p18 Casting carriage for raised bars. N '42 p17 Casting carriage for raised bars. N '42 p18 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Casting carriage in operation. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p22		
Traffic Bars Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. N '42 p17 Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Constructing raised bars. Casting carriage for raised bars. N '42 p18 Proportioning and mixing machine mounted on truck. Applying cementing agent to pavement immediately ahead of casting. Casting carriage in operation. J/A '52 p21 Casting carriage in operation. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage.		
Raised white bars placed at intersections, wyes, neutral strips on divided highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Constructing raised bars. Casting carriage for raised bars. Proportioning and mixing machine mounted on truck. Applying cementing agent to pavement immediately ahead of casting. Casting carriage in operation. Trimming end of recently cast bar; Side view of casting carriage. D '40 p5 N '42 p17 N '42 p17 N '42 p18 N '42 p18 N '42 p17 N '42 p17 Casting carriage for raised bars. N '42 p17 J/A '52 p21 Applying cementing agent to pavement immediately ahead of casting. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage.		J/F '67 p40
highways, and around central placed signs. Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Constructing raised bars. Casting carriage for raised bars. Proportioning and mixing machine mounted on truck. Applying cementing agent to pavement immediately ahead of casting. Casting carriage in operation. Trimming end of recently cast bar; Side view of casting carriage. D '40 p5 N '42 p17 N '42 p17 N '42 p18 Apr '42 p8 J/A '52 p19 J/A '52 p21 J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage.		
Asphalt concrete bars placed in advance of safety zones adjacent to streetcar track. City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Constructing raised bars. Casting carriage for raised bars. Proportioning and mixing machine mounted on truck. Applying cementing agent to pavement immediately ahead of casting. Casting carriage in operation. Trimming end of recently cast bar; Side view of casting carriage. N '42 p17 N '42 p18 Apr '42 p8 J/A '52 p19 N '42 p18; J/A '52 p21 J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage.		- / 10 -
City Engineer Klassen of Daly City, who devised method. Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Constructing raised bars. Casting carriage for raised bars. Proportioning and mixing machine mounted on truck. Applying cementing agent to pavement immediately ahead of casting. Casting carriage in operation. Trimming end of recently cast bar; Side view of casting carriage. N '42 p18 Apr '42 p8 Apr '42 p8 N '42 p17 N '42 p18; J/A '52 p21 J/A '52 p21 J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p21		
Looking north on Van Ness Ave from corner of Pacific Ave. Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Constructing raised bars. Casting carriage for raised bars. Proportioning and mixing machine mounted on truck. Applying cementing agent to pavement immediately ahead of casting. Casting carriage in operation. Trimming end of recently cast bar; Side view of casting carriage. N '42 p18 N '42 p8 N '42 p19 J/A '52 p19 N '42 p18; J/A '52 p21 J/A '52 p21 J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage.		-
Looking south toward Jackson St. Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Constructing raised bars. Casting carriage for raised bars. Proportioning and mixing machine mounted on truck. Applying cementing agent to pavement immediately ahead of casting. Casting carriage in operation. Trimming end of recently cast bar; Side view of casting carriage. N '42 p18 Apr '42 p8 Apr '42 p8 N '42 p17 V '42 p18; J/A '52 p21 J/A '52 p21 J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p21		
Raised white bars provide channelization at medial divider ends. Completed traffic bars on pavement. Constructing raised bars. Casting carriage for raised bars. Proportioning and mixing machine mounted on truck. Applying cementing agent to pavement immediately ahead of casting. Casting carriage in operation. Trimming end of recently cast bar; Side view of casting carriage. Apr '42 p8 J/A '52 p19 N '42 p18; J/A '52 p21 J/A '52 p21 J/A '52 p21 J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage.		
Completed traffic bars on pavement. Constructing raised bars. Casting carriage for raised bars. Proportioning and mixing machine mounted on truck. Applying cementing agent to pavement immediately ahead of casting. Casting carriage in operation. Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p19 N '42 p18; J/A '52 p21		
Constructing raised bars. Casting carriage for raised bars. Proportioning and mixing machine mounted on truck. Applying cementing agent to pavement immediately ahead of casting. Casting carriage in operation. Trimming end of recently cast bar; Side view of casting carriage. N '42 p17 J/A '52 p21 J/A '52 p21 J/A '52 p21 J/A '52 p21		
Casting carriage for raised bars. Proportioning and mixing machine mounted on truck. Applying cementing agent to pavement immediately ahead of casting. Casting carriage in operation. Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p21		
Proportioning and mixing machine mounted on truck. Applying cementing agent to pavement immediately ahead of casting. Casting carriage in operation. Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p21 J/A '52 p21 J/A '52 p21		
Applying cementing agent to pavement immediately ahead of casting. Casting carriage in operation. Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p21 J/A '52 p21 J/A '52 p22		
Casting carriage in operation. J/A '52 p21 Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p22		
Trimming end of recently cast bar; Side view of casting carriage. J/A '52 p22		
General view of operations. J/A '52 p22		
	General view of operations.	J/A '52 p22

SAFETY, Continued	
Experimental traffic bars immediately after installation.	J/F '56 p40
Test traffic bars after 2-3 months; Experimental bars after 11 months.	J/F '56 p40+
Wrong Way drivingSee also SIGNS	
Wrong Way Driver survey	
Installing motion picture camera into control box for gathering data.	N/D '65 p26
Redesigned pavement arrows to discourage wrong-way driving.	M/J '65 p14
Spike barrier used to prevent wrong-way driving.	M/J '65 p15
SCENIC HIGHWAYS	
Governor's Advisory Committee on a Master Plan for Scenic Highways with	
Gov. Edmund Brown.	S/O '65 p54
Marin Co.; Sir Francis Drake Blvd., an example of a highway that is both	
aesthetically pleasing and functional.	M/A '64 p63
Monterey Co.	
Rt. 1 near Big Creek Br., California's first officially designated scenic highway. Section of Rt. 1, a portion of first official scenic highway. N/D '65 p7;	J/A '65 C, i.cvr. S/O '66 p11
Placer Co.;	
Natural beauty preserved along I-80 near Cisco Grove in the Sierra Nevada.	N/D '65 p42
Scenic Highway Advisory Committee meeting in session, Feb. 19, 1964.	M/A '64 p62
Members of SHAC examine model of scenic treatment of I-280 in San Mateo Co.	M/J '65 p16
SCENIC/RECREATIONAL AREAS	
Deserts	
Rainbow across desert.	M/J '66 p31
Wildflowers blooming next to desert cacti.	M/J '66 p31
Split Mountain area, Anza-Borrego State Park.	M/J '66 p32
Eureka Sand Dunes near Death Valley National Monument.	M/J '66 p32
Red Rock Canyon, northwest edge of Mojave Desert.	M/J '66 p32
Variety of wildflowers found in eastern Mojave Desert plateau.	M/J '66 p33
El Dorado Co.; Lake Tahoe viewed from state highway.	S/O '50 112
Emerald Bay and Lake Tahoe.	M/J '66 p26
Gold Country, Rt. 49 (Mother Lode Hwy.)	
"Bunting" hanging across road in Angels Camp advertising Jumping Frog Contest.	M/J '66 p40
Mother Lode 4th of July celebration in Nevada City.	M/J '66 p41
Church and cemetery in Mokelumne Hill.	M/J '66 p41
Big wheels of Kennedy Mine in Jackson. Man-powered fire engine named Papeete built ca. 1850s, at Columbia State Park.	M/J '66 p41 M/J '66 p42+
Humboldt Co.	M/J 00 p42+
Coast in vicinity of Ft. Bragg.	M/J '66 p2
Group of smelt fisherman working near Ft. Bragg.	M/J '66 p5
Swimming at Richardson Grove State Park.	M/J '66 p7
Inyo Co.	112/0 00 р/
Geyser in action on US 395 [Rt. 23]	Mar '38 p23
Packer and train entering Monache Meadows.	M/A '66 p20+
Packer leading pack train along side of Kern River Canyon.	M/A '66 p22
Sierra redwoods and white firs in Freeman Creek Grove.	M/A '66 p23#
View downstream along upper Kern River near Summit Creek.	M/A '66 p24
Ford on trail across Kern River.	M/A '66 p25
Boy Scouts hiking along trial in Lloyd Meadows near Freeman Creek.	M/A '66 p25
Edward Montes of Div. of Hwys. at campfire in Monache Meadows.	M/A '66 p25
Mt. Whitney; Whitney Portals Rd. leading to basin below mountain.	S/O '51 p51

SCENIC/RECREATIONAL AREAS Inyo Co., Continued	
Inyo Craters in vicinity of Mammoth Lakes.	M/J '66 p26
Sierra in the vicinity of Bishop.	M/J '66 p28
Sierra south of Lone Pine.	M/J '66 p29
Los Angeles Co.; Long Beach	1
Panoramic view of Long Beach waterfront at night, as seen from off shore.	S/O '66 p18+
Aerial view of Long Beach Harbor showing relationship of city to harbor.	S/O '66 p20
Coeds at Long Beach College pose before modern sculpture on campus.	S/O '66 p22
One of many small craft berthing facilities in Long Beach Area.	S/O '66 p23
Long Beach Skyline as seen from harbor area.	S/O '66 p23
Public beach area.	S/O '66 p23
Submarine for oceanography study.	S/O '66 p25
Paved parking lot at beach; Canal district in Naples section of Long Beach.	S/O '66 p25
Mariposa Co.; View of Half Dome, Yosemite Valley.	M/A '51 p38
Skiers at Badger Pass winter sports area, Yosemite National Park.	M/J '66 p25
Mendocino Co.; surf-smelt fisherman at work, Mendocino Co. coast.	M/J '66 p5
Mono Co.; US 395	141/3 00 p3
Boaters at Convict Lake.	M/J '66 p24
View of Mt. Dana framed by lodgepole pines.	J/F '66 p15
Whitebark pine tree near Mt. Dana.	J/F '66 p15
Granite outcropping; Glacial cirque as seen from road to Saddlebag Lake.	J/F '66 p19
Cathedral Rocks, Yosemite National Park in winter.	M/J '66 p27
Aspens in autumn at Crowley Lake south of Lee Vining.	M/J '66 p28
Winter scene near Crowley Lake.	M/J '66 p28
Monterey Co.	
China Cove at Point Lobos State Scenic Reserve.	M/J '66 p36
Native stand of Monterey Pines at Cannery Point.	M/J '66 p36
Seaward view of Cannery Point.	M/J '66 p37
Unorthodox view of Cannery Row, Monterey, at dawn.	M/J '66 p37
Monterey Co. coastline in Big Sur country.	M/J '66 p37
Fisherman's Wharf in Monterey.	M/J '66 p37
Rugged Monterey coast, Big Creek Br. on Carmel-San Simeon Hwy.	S/O '50 112
Northern California coast, general	M/J '66 p3
Northern California Coast and Trinidad Head.	M/J '66 p2
Small harbor on north coast.	M/J '66 p5
Plumas Co.; Feather River in Plumas Co. viewed from highway.	S/O '50 112
Riverside Co.; giant Rock formation in Joshua Tree National Monument.	J/A '54 p58
San Francisco	•
Ghirardelli Square.	M/J '66 p34
Hyde St. cable car.	M/J '66 p34
One of San Francisco's seven hills, showing Coit Tower.	M/J '66 p35
Dragon paraded through Chinatown in Chinese New Year celebration.	M/J '66 p35
San Luis Obispo Co.;	
Coast south of Morro Bay, part of Montana de Oro State Park.	M/J '66 p36
Sunset at Morro Bay.	M/J '66 p39
San Mateo Co.; picnickers along coast on coast road.	M/J '66 p39
Santa Barbara Co.; Gaviota Gorge, looking south.	M/A '51 p6
Shasta Co.	
Boathouse on Shasta Lake; Black Bass taken in lake.	J/A '52 p31
Burney Falls in Shasta area.	M/J '66 p9
Mt. Shasta as seen from I-5 [US 99]. S/O '50 112;	M/J '66 p9
Sierra Co.; Sierra Buttes viewed from Rt. 49 in Sierra City.	J/A '55 p64

SCENIC/RECREATIONAL AREAS, Continued Sierra Nevada Snow plant, protected by California law. M/J '66 p24 M/J '66 p24 Boaters at Long Lake. Speed boat at unidentified Sierra lake. M/J '66 p25 Upper Sardine Lake in Lakes Basin country, northern Sierra. M/J '66 p26 Sierra scene reminiscent of Maxfield Parrish. M/J '66 p26 M/J '66 p28 East side of Sierra Nevada in winter. M/J '66 p29 Typical Sierra scenes. Mount Whitney. M/J '66 p29 Sonoma Co.; fishing boats in Tomales Bay, Sonoma Coast. M/J '66 p5 M/J '66 p3 Wine and grape country near Healdsburg. Southern California Family at Southern California beach; Kite Skiing; Surfers. M/J '66 p16 Kids playing in sand at one of San Diego's ten state beach parks. Scenes from San Diego Zoo. M/J '66 p21 M/J '66 p9 Tehama Co.; Mt. Lassen seen across Reflection Lake in winter; Chaos Crags. Bumpass Hell nature trail, near summit; Mt. Lassen Volcanic National Park; M/J '66 p11 Trinity Co.; fisherman working Trinity River near Junction City. M/J '66 p9 **SIGNALS** Automatic traffic signals S '40 p22 Traffic actuated signal on I-80 [East Shore Hwy.] at Berkeley. Signal control treadle (traffic detector), operated by car passing over it. S '40 p22 San Diego intersection where one automatic signal controls 3,000 cars per hour. Mar '42 p18 Traffic on US 101 at Millbrae Ave. proceeding under regulation of new traffic signal dispatcher; Close-up of new traffic signal dispatcher. Jul '42 p9, 11 Signal in San Diego with electric brain to receives messages and operates signals. M/A '43 p13 Market and Pacific intersection; left turn signal. M/A '43 p13 Magnetic detector coil buried in pavement. M/A '43 p13 Intersection on I-80 [East Shore Hwy.], Contra Costa Co., where an electric monitor governs through and turning movements on six lanes of heavy traffic. J/A '43 p6 Incandescent globes for use in signal lamps being tested. N/D '60 p26 Indentation of median strip provides a waiting/storage lane for left turns. J/A '43 p7 Pedestrians on safety island awaiting effect of push button signal. M/A '43 p13 Pedestrian "Walk-Wait" signal in operation. M/A '43 p13 Progressive signal system unit on El Camino Real at Broadway, San Mateo. M/J '47 p14 El Camino Real at Broadway, Redwood City. M/J '47 p11 Traffic signal control amplified by channelization islands and separate lanes for turning vehicles. J/A '43 p7 N/D '60 p47 Traffic signal control unit used on multi-phase signals at rural intersections. Samples of traffic lights in bulb-life testing rack. N/D '65 p65 Traffic signal used in one-way traffic control on Knights Landing Bridge. J/A '49 p29 World War II; traffic signal blackout unit. Aug '42 p4 SIGNS **Business District/Bypass signs** Illuminated sign directing motorists to bypassed area. M/J '56 p11 Business District guide sign. M/J '56 p7+ Signs directing travelers to small community and services available. S/O '60 p29 S/O '60 p28 Sign directing travelers from freeway to business route. Freeway turnoff sign with the word "downtown" indicating central business area. S/O '60 p29

SIGNS, Continued	
Butterfly-type sign structure; Same sign at night.	N/D '58 p27
California road signs, use of in South Pacific	
Jeep driver at South Pacific naval base stops to ponder road signs.	N/D '43 p20
Cantilever type sign structure.	N/D '58 p30
	S/O '60 p24
Directional signs	
"Cross Road," "Side Road" directional signs.	M/J '47 p19
Oceanside directional sign in afternoon; Oceanside sign at twilight.	M/J '51 p39
Directional information signs. M/J '56 p4;	S/O '60 p25
Sign which once guided motorists in S. California, ca. 1920s-30s. M/J '56 p4;	S/O '60 p24
Large directional freeway signs.	N/D '61 p49
Freeway access rights public notice signs.	J/F '48 p22
Freeway entrance sign prohibiting pedestrians and cyclists.	M/J '64 p20
"Guide signs"	9/0 //0 2/
Guide signs with divider between destinations in different directions. M/J '56 p5;	
Guide sign which once directed motorists in Southern California.	M/J '56 p4
Iron "map" which served as a guide to travelers in early days of motoring.	M/J '56 p2
Illumination	N/D (60 - 44
Experimental electro-luminescent overhead sign on Rt. 99 near Sacramento.	N/D '60 p44
Illuminated sign directing motorists to bypassed area. Bottom-mounted fluorescent sign lighting at southbound Army St. off-ramp, S.F.	M/J '56 p11 M/A '56 p49
Top-mounted fluorescent lighting at northbound South S.F. off-ramp, US 101.	
1	M/A '56 p49 J/F '59 p54
Overhead illuminated sign bridge on freeway. International traffic signs	J/F 39 p34
Members of the National Joint Committee on Uniform Traffic Control Devices	
examine proposed international signs and their California counterparts.	M/J '52 p54
Interstate shields M/J '56 p7; S/O '60 p28;	N/D '61 p50
Maintenance of signsSee also EQUIPMENT	14/D 01 p30
Overhead sign cleaning in progress.	J/A '59 p21
Sign washing on inside lane; Sign cleaning using lift tower.	J/A '59 p22
Cleaning a sign on Harbor Fwy. using newly-developed catwalk.	J/A '60 p43
Exposure racks used to test durability of signs and sign materials.	N/D '61 p30
Overhead freeway signs, general	F
Overhead signs on Santa Ana Fwy. at night and in daylight.	N/D '51 p10
Overhead sign bridge on North Sacramento Fwy. (Bus-80).	N/D '51 p11
Lower-case letters used in place of all capitals	·· - F
Signs using lower case letters mark exit ramp on Hollywood Fwy.	J/F '51 p6
Advance "Get Ready" signs on Santa Ana Fwy.	J/F '51 p6
Sign bridge featuring both lower case and all capital letters used in	
observation study shown at night and in daylight.	J/F '51 p7
Assembling and placing test signs.	J/F '51 p8
Pedestrian observers recording reading distance.	J/F '51 p10
Sign bridge from 400-ft. marker.	J/F '51 p10
Improved type sign on Harbor Fwy. with arrow pointing down, indicating	
proper lane for a particular exit.	M/J '56 p11
Installing large freeway sign.	J/A '61 p56
Overhead sign bridge.	N/D '58 p25
Sign showing distance to approaching turn-offs.	J/F '59 p54
Large overhead sign typical of those in use on freeways throughout state.	N/D '60 p45
Typical freeway sign listing next three exists and their distances.	S/O '60 p30
Sequence signing in advance of freeway junction under crowded urban conditions.	S/O '60 p31
Signs giving repeated notice of an important highway turnoff.	S/O '60 p32

SIGNS, Continued	
Signs giving notice of an approaching turnoff to a community	
from a major rural freeway.	S/O '60 p33
Sign bridge spanning both roadways of a freeway.	S/O '60 p24
Radio-control signsSee also TUNNELS Alameda Co., Caldecott Tunnel	
Changing radio-control sign from maintenance station.	
Radio-control sign on I-80 [US 40] announcing road conditions.	
Variable-message speed sign on Skyline Blvd. in San Francisco.	N/D '65 p47
Flashing "PREPARE TO STOP" signs installed on I-280 near San Francisco.	N/D '65 p47
Reassurance (distance) signs	
Sign showing distance to Rocklin, Auburn and Truckee.	M/A '52 p55
Stone maker on US 50 showing distance.	M/J '56 p2
Larger, reflectorized reassurance (distance) signs.	M/J '56 p6
Reassurance signs showing distance to upcoming destinations.	S/O '60 p27
Route markers	3.5/5./5055
Rt. 89 State Sign Route marker at Lake Tahoe.	M/J '52 p55
US 40 route marker and sign showing distance to Rocklin, Auburn and Truckee.	M/A '52 p55
US 99E route marker.	M/J '52 p54
Snow-related road signs meant to enhance safety and driving conditions.	M/A '52 p57
Speed limits	D (20 24
Example of safe speed signs being placed at curves in test program.	D '38 p24 N/D '60 p45
Speed limits sign on I-80 [US 40] near the Nevada border. 70 MPH speed zone on US 99 near Bakersfield; End of 70 MPH zone.	M/J '64 p51
65 MPH speed limit sign.	S/O '60 p24
Speed limit signs.	M/J '56 p3
Warning sign tells safe driving speed for curve zones on California highways.	Apr '39 p19
Vandalism	71pi 37 pi7
Bullet-ridden directional sign; Bullet-ridden stop sign.	J/A '61 p58
Soda bottle stuck in large freeway sign.	J/A '61 p58
Collection of vandalized signs; Vandalized 2-post city limit sign.	J/A '61 p59
Wrong Way signs M/J '65 p10+;	N/D '65 p41
Lighted "Go back-you are going Wrong Way" sign at freeway exit.	J/A '64 i. cvr.
"Do Not Enter-Wrong Way" experimental signs at freeway off-ramp.	N/D '64 p8
SNOW	
Chain installation operation.	J/F '66 p26
"Chains required" signs installed on turnabout mountings.	J/F '66 p29
Maintenance stations	-
Conway Summit maintenance station on US 395.	J/F '66 p28
Donner Summit maintenance station, showing radio towers.	S/O '50 p157
Maintenance station and crew at Yuba Pass on Donner Summit route.	Apr '38 p17
Interior of Donner Summit maintenance station, men and equipment.	Apr '38 p17
Division of Highways maintenance station at Echo Summit.	Jan '42 p23
Aerial view of Donner Summit maintenance station.	M/A '52 p46
Echo Summit snow removal station (US 50)	
Clearing and burning Echo Summit site, Sept. 5, 1941.	O '41 p18
General view of work operations, Sept. 15.	O '41 p18
Bunkhouse foundation forms in place Sept. 18.	O '41 p18
General view, Sept. 19.	O '41 p18
Pouring concrete on bunkhouse foundations, Sept. 23.	O '41 p19
Finishing floor of truck shed, Sept. 25. Truck shed framing being erected, Sept. 30.	O '41 p19 O '41 p19
Floor joists on bunkhouse foundation, Sept. 30.	O 41 p19
1 1001 Joins on bunknouse foundation, sept. 30.	O 41 p19

SNOW, Continued	
Snow fences, trees planted for.	F '38 p19
Snow poles; driving snow poles by hand.	N/D '52 p42
Poles outline road after snow storm; Poles at night with reflectors attached.	N/D '52 p43
Air hammer for driving snow poles; Air hammer in operation.	J/F '55 p35+
Snow Removal	
Carson Pass/Rt. 88	
Tractor pushing loosened snow to rotary plow, late May 1952.	M/J '52 p29
Hand shoveling operations, 1923-25	
Construction crew on Red Lake grade, summer, 1923.	S/O '51 p24
Top of Twin Lakes Dam; Power shovel used on project.	S/O '51 p24
Summit of Carson Pass; Snow-covered Model T.	S/O '51 p24
Looking toward Twin Lakes from Kit Carson Pass.	S/O '51 p24
Clearing snowdrift on Red Lake grade, June 1923.	S/O '51 p24
First automobile over cleared road, close to Kit Carson Pass.	S/O '51 p24
Opening of road on June 26, 1925, on Red Lake Grade.	S/O '51 p24
Clearing road-way with hand shovels.	S/O '51 p24
Tom Healy operates tractor on job.	S/O '51 p24
Tractor bulldozing snow to rotary plow on Carson Pass Hwy.	M/J '57 p31
Snow removal operations in June at Carson Pass.	N/D '65 p9
City of San Francisco train, stalled by snow.	J/F '52 p3
Rescue road to train cut through Division of Hwys. maintenance crew.	J/F '52 p3
El Dorado Co.; Echo Summit/US 50	Jan '42 p22
Snow removal operations with auger blower equipment.	Apr '37 p7
15 ft. drift on Slippery Ford grade broken through for stalled traffic.	Apr '37 p7
Close-up of auger blower rotary and crew, showing improved type equipment.	Apr '37 p7
Widening operations in deep snow necessitate repeated backing up and	
bucking the banks at short intervals of progress.	Apr '37 p7
Echo Summit Hwy., March 1941, before clearing.	S '41 p1
Push snow plow operating on Meyers Grade in March, 1941.	S '41 p2
Typical drift condition that prevailed at Donner Summit.	J/F '52 p5
Plow clears path through deep drift on US 50.	J/F '52 p4
Twin Bridges resort on US 50 partly destroyed by snow avalanche.	J/F '52 p12
Lake Co.; result of snow clearing work on Mineral Summit (Rt. 175) [Rt. 29]	M/A '44 p4
Lassen Co.	3.5/4./445
Rotary plow and two push plows working to keep Rt. 36 open.	M/A '44 p5
US Park Service equipment working heavy drift to open Lassen Loop Hwy.	3.5/5./55 00
in Lassen National Park.	M/J '57 p33
Los Angeles Co.	3.5/3.644.2
Ridge Route (I-5) [US 99]; two big truck units stalled due to snowstorm.	M/A '44 p3
Snow on Ridge Route.	M/A '62 p38
Rt. 2, Angeles Crest Hwy.	NA/A 557 CO
Merritt Ridge near Newcombe ski lift on Angeles Crest Hwy.	M/A '57 p69
Austin-Western 4-wheel drive plowing snow from parking area.	M/A '57 p7
Parking area at Newcombe ski tow near 7,000-ft elevation.	M/A '57 p7
Snow along Angeles Crest Hwy.	M/A '62 p39
Snow removal operations on Angeles Crest Hwy.	M/A '64 p3.
Nevada Co.; Donner Summit/I-80 [US 40] Apr '38 p17; J/A '45 p8;	N/D '65 p22
Rotary snow plows engaged in widening operations in Donner Summit area.	F '41 p23, C
Snow sports area of Nevada Co. near Soda Springs.	F '40 p6
Group of skiers arriving on Donner Summit for a day's sport.	F '40 p7 F '40 p8
Truck equipment slicing down high snow bank on Donner Summit Hwy. 2 views illustrating the necessity of parking regulations on snow roads.	F '40 p8 F '40 p9
2 views musurating the necessity of parking regulations on show roads.	1 40 ps

SNOW Removal, Continued

History last on an in a controlled once the Colombia and without control	E (40 =0
Highway kept open in a controlled area.; traffic jam in area without control.	F '40 p9
Rotary plow hurling snow high over Donner Summit road to opposite bank.	M/A '44 p18
Motorists installing chains at Donner Summit.	M/A '44 p4
Trucks stuck in snow on I-80 [US 40] at Baxter, Jan. 11, 1952.	J/F '52 p1
Huge boulder blocking US 50 near Kyburz, Feb. 2, 1952.	J/F '52 p5
Plows working on deep drift at airport on I-80 [US 40].	J/F '52 p9, 12
Temporary end of road just west of Donner Summit Maintenance Station.	J/F '52 p10
Auger type snow plow cutting through drift east of Donner Summit.	J/F '52 p11+
Snow wall opposite ski resort in Donner Summit area, late March, 1952.	M/A '52 p44
Roadside parking at ski resort; Regulated parking near Soda Springs.	M/A '52 p45
Snow conditions at Donner Summit Lodge on I-80 [US 40].	M/A '52 p47
Squaw Valley parking lot filled with cars, skis, and skiers.	J/F '66 p27
Eastbound near Donner Lake, cleared of snow.	J/F '66 p28
San Bernadino Co.; San Bernadino Mts./Rt. 18	
Cars parked at Big Pines headed out of the region to prevent traffic jam.	Jan '37 p5
Blower plow at work opening road.	Jan '37 p5
Plow working way through snow drifts.	Jan '37 p5
2-way road opened through heavy drifts of "No Man's land."	Jan '37 p5
Drifts area in "No Man's Land," San Bernadino Mts.	M/J '49 p14
Snow Falls in Mojave Desert.	M/J '49 p14
Snow sports area, San Bernadino Mts.	M/J '49 p14
Snow sports area, San Bernadino Mts. Snow removal operations in San Bernadino Mts.	M/J '49 p14 M/J '49 p16
1	M/J 49 p16
Rotary snow plow clearing Rt. 18 in San Bernadino Mts. between	M/A ((2 :: 20
Lake Arrowhead and Big Bear.	M/A '62 p38
Snow removal crews and equipment.	Apr '38 p17
Sonora summit, snow removal crews meet on.	Jul '42 p3
Sonora highway before and after snowplow.	Jul '42 p4+
Dynamite blasts snow pack; Snowplow at work on Sonora summit.	Jul '42 p6
Rugged terrain through which Sonora Pass Hwy. runs.	M/J '57 p32
Tractor breaking up snow and ice pack, followed by rotary, as man prepares to	
loosen pack by blasting.	M/J '57 p31
Widening operations to clear highway of deep snow banks.	Jan '38 p4
Snow removal equipment, generalSee also EQUIPMENT	
Auger blower rotary snow plow.	Jan '38 p4
Blade plow in action.	M/J '49 p16
Snogos in operation.	M/J '49 p16
Rotary plows dispose of snow remaining after heavy push-plow operations.	S/O '51 p30
Rotary plow in operation on Ebbetts Pass Hwy.	M/J '57 p33
Rotary plow used in areas of combined heavy snow and high traffic volume.	J/F '66 p22
Rotary plows, sand spreaders, and snow loaders at maintenance station.	J/F '66 p23
Grader in operation.	J/F '66 p23
Radio-equipped snow equipment	•
Radio equipped snow plow working isolated mountain section of Shasta Co.	F '39 p23
Foreman in maintenance station transmitting instructions to plow operator.	F '39 p23
Radio equipped snow plow.; Radio equipment in cab of snow plow.	F '39 p23
Radio technical truck used on mountain highways.	J/F '49 p45
Radio antennae tower at Garberville.	J/F '49 p45
Over-the-snow vehicle used to service unmanned repeater station network.	J/F '66 p30
Synthetic rubber-jacketed wiring on snow-going machinery.	J/F '66 p24
Loading cinders from bunker into waiting trucks; Filling salt spreader.	J/F '66 p24
Automatic snow stake driver invented by Dist 9.	J/F '66 p25
Hydraulic snow stake driver rig.	J/F '66 p25
rrydraune snow stake driver rig.	3/1 00 p23

SNOW Removal, Continued	T/E ((() 05
Differential carrier and ring gear installation operations.	J/F '66 p25
Axle being bolted together and reinstalled.	J/F '66 p25
Fastening air cleaner brackets above new diesel engine.	J/F '66 p25
Modified rotary snowplow being trucked to its winter home.	J/F '66 p25
Rotary plow funneling intake into snow loader.	J/F '66 p26
Rotary snowplow in operation.	J/F '66 p27
Surveys	
Demonstrating how a snow sample is obtained.	May '38 p21
Snow surveyors near summit of the Sierra.	Apr '39 p4
Snow surveyors with full equipment in packs making way through snow.	Apr '39 p6
Snow surveyors at work. Apr '39 p5;	May '40 p5
Snow surveyors climbing grade on skis en route to Chilkoot Lake.	F '41 p10
Surveyors gliding down slope.	F '41 p11
Weighing core of snow taken in aluminum measuring tube.	F '41 p10
Surveyors at cabin in Sierra Nat. Forest.	F '41 p12
TECHNOLOGY	
TECHNOLOGY	
Computers/data processing	37/5/67 66
Checking data being received from recorder inside trailer at jobsite.	N/D '65 p26
Operators at work at the Type 604 Calculator [early computer].	J/A '55 p34
Research technician selects cards prior to processing with IBM 650.	M/A '60 p39
Computer and storage bank machine installed at Headquarters Accounting Dept.	M/J '61 p54
New type of bookkeeping machine; Bookkeeping machine in operation.	M/J '61 p55
Accounting personnel with new data processing equipment.	J/A '61 p63
Critical Path Method (CPM) of data processing workshop in session.	M/A '64 p60+
Computer Systems personnel operating IBM 1460 computer system console.	N/D '65 p50
Nuclear explosions, use of as excavation method	I/D (/ A 5 7)
Project Carryall model showing roadway excavation and drainage crater.	J/F '64 p57
Pipe-jacking	N. F. J. T. J. C. T. D. A.
Sled and trigger winch used in removing excavated materials.	M/J '55 p34
Excavated materials about to be removed.	M/J '55 p34
Jacking operations at Kellogg Hill (Los Angeles Co.).	M/J '55 p35
Equipment and two man crew used in operation.	M/J '55 p35
Radio Communications	0/0 650 44
Operating FM transmitter-receiver unit in a construction field office.	S/O '58 p44
Inspectors using radio to check blueprints on Victorville-Barstow job.	S/O '58 p58
Installing passive microwave reflector on Alder Ridge, US 50.	N/D '64 p25
Installing passive repeater by helicopter in order to receive radio signals at	N/D (() (
Kyburz maintenance station on US 50.	N/D '66 p6
CBS VP Arthur H. Hayes and General Manager of KCBS receiving last minute	0/0 574 40
road conditions by radio in Division of Highways radio room.	S/O '54 p49
Over-the-snow vehicle used to service unmanned repeater station network.	J/F '66 p30
Radio repeater station in Dist. 3.	J/F '66 p30
Dispatcher giving road/weather information to using a three-way combination	I/E (((20
of telephone, VHF radio, and microwave.	J/F '66 p30
"Talking Freeways"	
Planting message to be broadcast to motorists with vehicles equipped to	1/4 465 20
receive test messages. Pt. 160 in Segrements, gits for experimental tests on the "tellring frequery"	J/A '65 p20
Rt. 160 in Sacramento, site for experimental tests on the "talking freeway."	J/A '65 p21

TRAFFIC -- See also MOTOR VEHICLES

Bay Area

DATEC (Dec. Acces Transported in Starte Commission)	
BATSC (Bay Area Transportation Study Commission)	1/4 (65, 20
Gov. Edmund Brown signing BATSC bill.	J/A '65 p38
BATSC computer room.	J/A '65 p39
BATSC Survey Interviewer in home of family participating in study.	J/A '65 p39
Staff on BATSC and Association of Bay Area Government.	J/A '65 p40
Training session for in-home interviewers.	J/A '65 p38
Commuters boarding San Francisco-bound train at Palo Alto.	J/A '65 p42
Commuter parking lot for freeway bus connection at Orinda, Contra Costa Co.	J/A '65 p43
Heavy traffic on Bayshore Blvd. stopped at traffic light on 3rd. St., S.F., 1953.	J/F '64 p17
Bayshore Fwy. and 3rd. St. Overcrossing after completion of freeway, 1957.	J/F '64 p17
Making measurements on aerial photo prior to to calculating enlargement factors.	J/A '65 p44
Morning inbound traffic from Contra Costa Co. approaching Caldecott Tunnel.	J/A '65 p41
Traffic congestion on East Bay approach to San Francisco-Oakland Bay Br.	J/F '67 p17
Traffic counts; traffic checker interviewing motorist.	J/F '47 p23
Truck drivers being interviewed on Washington Ave. near San Leandro.	J/F '47 p24
Interviewing drivers at External Traffic Station near San Leandro.	J/F '47 p24
Traffic on Mt. Diablo Blvd. heading east toward Pleasant Hill Rd., 1953.	J/F '64 p16
CHP motorcycle officer observing traffic on unidentified freeway.	J/F '67 p21
Los Angeles area	
Harbor Fwy., rush-hour traffic on.	J/A '56 p9
Merging traffic from left-hand entry.	J/A '56 p8+
Typical flow of traffic on Harbor Fwy.	J/F '67 p22
Hollywood Fwy, traffic and, general	
Heavy westbound traffic at Belmont Ave. pedestrian overcrossing.	M/A '52 p11
Heavy traffic on sections of Hollywood Fwy.	M/A '53 p13
Hollywood Fwy. at rush-hour, with traffic from Pasadena Fwy. merging.	J/A '56 p11
Traffic congestion on section near Belmont Ave. pedestrian bridge.	S/O '53 p36
Dense traffic on section near Bonnie Brae Ave. overcrossing.	S/O '53 p36
Peak traffic-flow on Hollywood Fwy. near Four-level structure.	J/F '55 p18
Peak-hour traffic at junction with inlet ramp for Highland Ave. traffic.	J/F '55 p20
Heavy traffic on Hollywood Fwy. near Four-level interchange.	N/D '55 p38
Peak-hour traffic near Temple St. looking toward downtown L.A.	N/D '55 p39
Traffic using only top level of Four-level interchange.	J/F '56 p61
Heavy traffic using all four levels of interchange.	J/F '56 p61
Traffic near the Four-level, 1951; Peak-hour traffic at same location, 1956.	J/F '56 p61
Traffic problems, L.A. freeways and, general	•
Autos blocked by train on Santa Monica Blvd.	F '38 p13
N. Figuroa St. Br. over Los Angeles River showing effect on traffic	
making left turn for Riverside Dr.	O '40 p7
Rush hour traffic at intersection of Fletchers Dr. and San Fernando Rd.	D '38 p5
Traffic through N. Figueroa St. tunnels merging at Solano St. intersection.	O '40 p7
Typical midday traffic at intersection of Olympic Blvd. and Santa Fe Ave.	D '38 p1
LARTS (Los Angeles Regional Traffic Study)	_
LARTS Advisory Committee meeting in progress.	J/F '61 p33
Highway Planning Survey personnel interviewing outbound traffic	•
for LARTS study near Ventura on Rt. 1.	J/F '61 p34
Post card questionnaire coding room in Division of Hwys. Building, L.A.	J/F '61 p34
Survey interviewer questioning truck driver.	J/F '61 p35
Home interview in progress.	J/F '61 p35
LARTS study being explained to local officials in Orange Co.	J/F '61 p36
Dist. 8 personnel looking over LARTS maps.	M/A '64 p38
	•

California Highways and Public Works

PHOTOGRAPH INDEX 1937-1967

TRAFFIC, Continued Santa Ana Fwy. (I-5) Outbound traffic on Santa Ana Fwy. J/F '55 p20 Section at junction with I-10 under full afternoon traffic load. J/F '57 p7 Section near Alameda St. Br. at rush hour. J/F '55 p20 Traffic congestion at "Mixmaster" traffic interchange. J/A '53 p18 Traffic near Civic Center, 1951. Same location, 1956. J/F '56 p62 Santa Ana-Hollywood Fwy. on a clear day, showing large number of vehicles. S/O '66 p13 Traffic using Four-level Interchange, Los Angeles. J/A '56 p5, 7 J/A '56 p6 Traffic congestion at intersection of 2-lane highways. Traffic congestion at intersection of 3-lane, one way city streets. J/A '56 p6 Uneven distribution of truck-auto traffic on slight upgrade. J/A '56 p7 Noise-level study test in progress on Ridge Route section of I-5 north of L.A. J/A '66 p46 Signal used to cue participants in noise-level study. J/A '66 p46 Origin and destination study Home interview being conducted for origin and destination study. J/A '66 p40 Interviewer checking map of area sample families live in to plan her route. J/A '66 p41 Interviewer presenting ID card to member of study family. J/A '66 p41 Interviewer training course in session. J/A '66 p42 Computer used to store and compile study data. J/A '66 p43 Study data being prepared for computer by hand. J/A '66 p43 Traffic behavior study Speed placement cables in operation on highway. S '40 p17 Interior of equipment truck showing two graphic recorders on right. S '40 p17 Passing practice study with concealed recorders. S '40 p17 Traffic congestion on unidentified surface street. J/F '67 p21 Traffic counting equipment, automatic Auto passing between automatic count machines on each side of road. Jun '37 p7 Close-up of one of photo-electric traffic count devices. Jun '37 p7 Counting machine open, member of Maintenance Dept. reading ticket tape count. Jun '37 p7 Autos just passed through 2 parallel beams of infrared light projected across road. Jun '37 p7 Typical installation of automatic traffic counter on highway. S/O '43 p17 Recording mechanism in box; Box with lock and chain, vandalism warning sign. S/O '43 p17 Traffic counts, historic: types of motor vehicles tabulated in early day traffic counts. N/D '44 p18 State highway [traffic census] crew starting for work in 1913. N/D '44 p18 N/D '44 p23 Pioneer state highway crew prepares to load its wagon for field work. Traffic patterns, aerial motion pictures of Preparation and operation of captive balloon with movie camera attached. May '39 p20 May '39 p20+ Film pictures of traffic at intersection of two arterials. **TUNNELS & TUBES** Alameda Co. Caldecott Tunnel [Broadway Low Level Tunnels] Original 1904 tunnel through Berkeley Hills, and first low-level tunnel under construction, 1934. J/A '65 p13 Landvale overhead across west approach to tunnel. D '37 p5 West portal of bore. D '37 p5 State highway leading from Moraga Junction to east portal. D '37 p5 Twin tubes of tunnel and lighting system. D '37 p5 Dummy wall blocking west portal as Gov. Merriam blasts aperture. D '37 p12 Official group at opening of Broadway Tunnel. D '37 p13

J/A '60 p31

J/A '60 p32

Sketch of Oakland approach to proposed third Broadway Tunnel.

Aerial view showing locations of existing and proposed tunnels.

TUNNELS & TUBES Alameda Co., Continued Official guests and members of Caldecott family at re

Official guests and members of Caldecott family at renaming ceremony.	S/O '60 p60
East portal of Caldecott Tunnel on Rt. 24.	M/J '61 p17
Drilling new 2-lane tunnel to supplement existing 4-lanes at tunnel.	N/D '61 p17
East Portal, and new bore under construction on Rt. 24.	M/J '64 p32
Approach lanes and east portal of new Caldecott Tunnel.	J/A '66 p2
West portal of new Caldecott Tunnel bore.	M/J '65 p27
Exterior of nearly completed third tunnel.	J/A '65 p18
Scaffolding for construction on new portal building.	J/A '65 p15
Excavation operations using hand shovels.	J/A '65 p15
Miners at work on top level of protective jumbo.	J/A '65 p15
New tunnel excavated to roadway level.	J/A '65 p15
Concrete pouring by air-propelled placement system.	J/A '65 p15
Steel sets and timber logging supporting excavation of upper portion of tunnel.	J/A '65 p15
Concrete arch section with forms in place for ceiling above roadway.	J/A '65 p16
Tiling operations in progress.	J/A '65 p16
Existing Caldecott Tunnel and completed third tunnel.	J/A '65 p12
Small cross-tunnels used by maintenance personnel.	J/A '65 p18
Installing strip lighting for Caldecott Tunnel.	M/J '65 p29
Ventilation fans for supplying fresh air to new tunnel bore.	N/D '64 p53
Master control panel; One of two huge ventilating fans; Exhaust ducts.	J/A '65 p17
Partially completed partitioned ventilation channels above roadway.	J/A '65 p16
Foreign visitors inspect ventilation fan room in Caldecott Tunnel.	N/D '65 p65
Television camera mounted on new tunnel bore to keep maintenance	
personnel posted on traffic conditions. N/D '64 p65; J/A '65 p17;	J/A '66 p7
View of traffic seen on television monitor in control room.	J/A '66 p7
Tunnel control room with television monitor in background.	J/A '66 p2
Changeable message sign installed at approach to tunnel.	J/A '66 p3
Message on sign in process of changing; New message displayed on sign.	J/A '66 p3
Photo sequence showing sign message change.	J/A '66 p6
Positive barrier designed to stop vehicles from crossing over into	
opposing traffic lanes in raised and lowered positions.	J/A '66 p4
Popup in raised position.	J/A '66 p5
Northbrae railroad tunnel-Solano Ave., Berkeley	
Interior after completion, 1911; After conversion for use by auto traffic, 1962.	M/A '63 p63
Southerly end of tunnel, 1911.	M/A '63 p64
Southerly end of Solano Ave. project at Sutter St., 1962.	M/A '63 p64
Posey Tube, models of	N/D '48 p8
Aerial view of tube, indicating proposed location for Webster St. tunnel.	M/J '59 p24
Webster St. Tube	
Model of	N/D '48 p8
Aerial view indicating proposed location for Webster St. tunnel.	M/J '59 p24
Artist's drawings of tube construction and proposed portal building.	M/J '59 p24+
Retouched aerial photo of project site.	M/A '60 p11
Members of congressional delegation at graving dock in Alameda for	
casting sections of Webster St. Tube.	J/F '61 p10
Casting yard and equipment used in constructing precast tube segments.	J/F '61 p25
General tube site, showing temporary lift bridge on railroad shoofly.	J/F '61 p27
Oakland Portal Building excavation in progress.	J/F '61 p27
Tube segment being towed; Tube reinforcement and interior invert form.	J/F '61 p29
Roadway deck form being lowered into place.	J/F '61 p29
Section of interior of tube forms.	J/F '61 p30
Graving dock gate being lifted by floating derrick.	J/F '61 p31

TUNNELS & TUBES, Continued Contra Costa Co.; Caldecott Tunnel--See Alameda Co.

Contra Costa Co.; Caldecott TunnelSee Alameda Co.	
Del Norte Co.; Randolph Collier Tunnel, US 199 [Hazelview Tunnel]	
Crowd gathered at ground-breaking ceremony for tunnel.	S/O '60 p2
Old state highway and vicinity, showing proposed location of tunnel portals.	S/O '60 p3
Location of future north approach to tunnel.	S/O '60 p4
Driving pilot bore at north portal of tunnel.	M/J '61 p27
Drilling Collier Tunnel through mountains at Hazelview Summit.	N/D '61 p54
Construction inside Collier Tunnel.	N/D '62 p56
Heavy grading operations near south tunnel approach.	S/O '63 p3
Welder attaching brace to steel support of east footing drift.	S/O '63 p4
North portal top heading shield, supported upon footing wells.	S/O '63 p4
Excavation jumbo entering bore at south portal top heading excavation area.	S/O '63 p5
Bench jumbo drilling vertical holes prior to lowering floor of excavation.	S/O '63 p5
Correcting arch lining with pump and pipe lines.	S/O '63 p6
Grading and backfilling over tunnel at north portal.	S/O '63 p6
Crowd at tunnel dedication	S/O '63 p2
Bus entering north portal of tunnel immediately after dedication.	S/O '63 p2
Aerial view, looking toward south portal of tunnel.	S/O '63 p3
Lighting for tunnelsSee SAFETY, Lighting	•
Los Angeles Co.	
Broadway Tunnel	
South portal, which is to be entirely removed.	M/J '49 p19
North portal of tunnel before start of excavation operations.	M/J '49 p20
Old Broadway tunnel; Same location after replacement of tunnel by highway.	J/F '51 p17
Newhall Tunnel [Fremont Pass; San Fernando Pass]; Rt. 14 [Rt. 23; US 6]	
Dirt road through Fremont/San Fernando Pass. Jan '38 p10;	M/A '64 i.cvr.
Famous Beale Cut through San Fernando-Fremont Pass Rd.	S/O '54 p34
Fremont Pass, a slot through the mountains, the most direct route from	
Los Angeles to the north until 1910. S/O '50 p10;	J/F '52 p25
Old Newhall Tunnel.	S/O '50 p96
Two loaded trucks attempting to pass through Newhall Tunnel.	S/O '50 p96
Various traffic problems experienced in negotiating Newhall Tunnel, 1930s.	M/A '64 i.cvr.
Newhall Tunnel, narrow bore long a serious bottleneck for traffic	
between L.A. metropolitan area and interior valleys.	Jan '38 p11
Narrow Newhall Tunnel through Santa Susanna Mts. being transferred	
into open cut as indicated by dotted line.	N '38 p4
Cut being made straight through ridge, eliminating Newhall Tunnel, 1938.	M/A '64 i.cvr.
Newhall Tunnel cut as it appeared with mountain slopes excavated.	N '38 p5
Tractors pushing dirt down for removal by shovel.	N '38 p6
Construction on Mint Canyon Cut-off east of old Newhall Tunnel site.	N '38 p7
Widening operations to eliminate sharp curve on road to old tunnel site.	N '38 p7
Santa Susanna Mt. ridge in process of being cut through to transform	
Newhall Tunnel into an open cut highway.	Jan '40 p16
Modern 4-lane section of Newhall Tunnel highway with raised central	
dividing strip covered with plant-mixed surfacing.	Jan '40 p17
Rt. 14 [US 6] after tunnel was eliminated.	S/O '50 p96
Section where tunnel was once situated, 1963.	M/A '64 i.cvr.
Aerial view of San Fernando Pass area.	M/A '64 i.cvr.
I-5/Rt. 14 [US 99/US 6] junction near tunnel area.	M/A '64 i.cvr.

TUNNELS & TUBES Los Angeles Co., Continued

TUNNELS & TUBES Los Angeles Co., Continued	
Rt. 2, Angeles Crest Hwy. [Rt. 61]	
Two tunnels, separated by 87-ft. of highway, being bored into	
Mt. Williamson on Angeles Crest Hwy.	D '41 C, p8
Portal of tunnel No. 2 through ridge of Mt. Williamson.	D '41 p9
Equipment mucking at main heading of tunnel No. 1, protective shell in use.	D '41 p9
Construction yard between tunnels, building concrete tunnel lining form.	D '41 p9
Equipment widening tunnel No. 1 bore, No. 2 bore entrance in background.	D '42 p19
Concrete tunnel lining form under construction for portal of tunnel No. 1.	J/F '46 p19
Construction work at Dawson Saddle; Pilot bore for Tunnel No 2.	S/O '48 p7
Westerly portal of Tunnel No. 1 near Honor Camp 37 on Angeles Crest Hwy.	N/D '56 p4
Marin Co.; Waldo (Marin) Tunnel	
Interior of tunnel on mountain stretch of Marin approach to Golden Gate Br.	May '37 p5
Gov. Knight and Frank Durkee inside entrance of new Waldo Tunnel.	N/D '54 p21
Mariposa Co.; Big Oak Flat tunnel in Yosemite Nat. Park.	M/J '52 p15
Monterey Co.; Eckhart Seed Co. freight tunnel	
Conveyor belt for Eckhart Seed Co. freight tunnel.	M/A '54 p44+
Outbound shipment of beans moving from plant to car via tunnel.	M/A '54 p45
Eckhart Seed Co. plant before construction of conveyor tunnel.	M/A '54 p43
After view showing buildings removed for right-of-way clearance.	M/A '54 p43
Plumas Co.; Grizzly Dome Tunnel	•
Start of tunnel operations.; Completed tunnel and highway.	Aug '37 p2+
San Bernadino Co.; old irrigation tunnel reconstructed (San Bernardino Fwy.)	C 1
Tunnel before construction; after reconstruction.	M/A '60 p6
Pouring floor slab with monorail unit; Crew placing tunnel liner.	M/A '60 p6
Forcing grout between new and old tunnel lining.	M/A '60 p6
Applying air-blown mortar to inside of new tunnel lining.	M/A '60 p6
San Francisco Co.	1
BART; artist's rendering of planned BART train tube beneath S.F. Bay.	J/A '66 p37
Presidio Tunnel (Rt. 1, Golden Gate Br. approach)	1
Erecting steel form jumbo preparatory to pouring arch for tunnel Presidio	Jun '39 p5
Pouring tunnel sidewall blocks.	Mar '39 p6
Tunnel construction by open cut method.	S '39 C
View of tunnel under golf course in U.S. Presidio.	May '40 p15
Yerba Buena Tunnel connection with World's FairBay Br. Hwy.	Jun '38 p23
Yerba Buena Tunnel Reconstruction	1
Movable bridge over site of tunnel reconstruction.	J/F '62 p39
Traffic crossing movable bridge at entrance to tunnel.	J/F '62 p40
View through lower level of tunnel showing center columns to be removed.	J/F '62 p40
Double mounted air hammers for breaking out upper deck and columns.	J/F '62 p40
Precast concrete girder unit on temporary staging.	J/F '62 p41
Workmen clearing lanes of equipment preparatory to shifting traffic.	J/F '62 p41
Truck backing into position with another unit.	J/F '62 p41
Moving girders into position before strengthening upper deck supports.	J/F '62 p43
San Mateo Co.; Mussel Rock tunnel	7.2 VI P 10
Ancient tunnel and cut through Mussel Rock below Rt. 1.	M/J '56 p13
Hwy. Superintendent A.E. Cooper and Hwy. Foreman H.E. Grosser at tunnel.	M/J '56 p52
Santa Barbara Co., Gaviota Gorge Tunnel	
View of Gaviota Gorge showing proposed location of tunnel's south portal.	M/A '51 p10
Borings for tunnel at Gaviota Pass; Construction at mouth of tunnel.	N/D '51 p37
Tunnel lighting from south face of bore.	N/D '53 p37
Lighting, looking north inside tunnel.	N/D '53 p59
Approach to Gaviota Tunnel, US 101.	M/A '54 p63
	-

UTILITIES

UTILITIES	
Alameda Co.; telephone cables suspended on shoofly above completed bridge.	J/F '61 p64
Pile driver in operation between suspended phone cables and west	
half of new bridge.	J/F '61 p65
High voltage power line being raised to allow clearance for freeway construction.	M/A '58 p23
Los Angeles Co.	
Alamitos Bay/Ocean Park project	
Concrete pipe ready to be laid under San Gabriel River to supply cooling	
water from Alamitos Bay to Seal Beach Power Plant.	S/O '44 p14
Entrance structure to cooling pipe tunnels under San Gabriel River.	S/O '44 p15
Concrete being placed in caisson for grillage in middle section of concrete	
pipe cooling water tunnels built under San Gabriel River.	S/O '44 p16
Telephone ducts supported from the girders by steel straps.	S/O '60 p36
Telephone manhole contents and ducts protected by timber planks and	
supported above the bridge "glory hole."	S/O '60 p37
Telephone ducts supported from steel girders after bridge falsework	
was constructed.	S/O '60 p38
Workers preparing to release steel straps and lower ducts into final	
position inside concrete girder.	S/O '60 p38
Telephone ducts inside concrete box girder.	S/O '60 p39
San Diego Co.; water line relocated for freeway.	S/O '60 p14
Underground telephone conduit installation.	S/O '60 p14
Underground telephone lines temporarily suspended on poles.	S/O '60 p14
Splicing telephone cables; Temporary relocation of telephone cables.	M/A '58 p24
Texas-to-California gas line relocation, June 4, 1949	
The "Big Blow" receding after 5-1/2 million cf. of gas was blown to atmosphere.	J/F '50 p50
Upper section of old Texas-to-California gas line removed.	J/F '50 p50
New gas main lowered and ready for connecting to the main line.	J/F '50 p50
New gas main lowered and ready for connecting to the main line. New line installed on lower level ready to connect to existing gas main.	J/F '50 p50 J/F '50 p50
New line installed on lower level ready to connect to existing gas main.	
New line installed on lower level ready to connect to existing gas main. WORLD WAR II-RELATED	J/F '50 p50
New line installed on lower level ready to connect to existing gas main. WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road.	J/F '50 p50 N '41 p3
New line installed on lower level ready to connect to existing gas main. WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit.	J/F '50 p50 N '41 p3 Aug '42 p4
New line installed on lower level ready to connect to existing gas main. WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific.	J/F '50 p50 N '41 p3
New line installed on lower level ready to connect to existing gas main. WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25
New line installed on lower level ready to connect to existing gas main. WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road.	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1
New line installed on lower level ready to connect to existing gas main. WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate.	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2
New line installed on lower level ready to connect to existing gas main. WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge.	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1
New line installed on lower level ready to connect to existing gas main. WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge. Surfacing on numerous highways of strategic value will not long stand up	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2 N '40 p3
New line installed on lower level ready to connect to existing gas main. WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge. Surfacing on numerous highways of strategic value will not long stand up under the pounding of heavy mechanized army equipment.	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2 N '40 p3 N '40 p4
New line installed on lower level ready to connect to existing gas main. WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge. Surfacing on numerous highways of strategic value will not long stand up under the pounding of heavy mechanized army equipment. Heavy military and civilian traffic on too-narrow road.	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2 N '40 p3
New line installed on lower level ready to connect to existing gas main. WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge. Surfacing on numerous highways of strategic value will not long stand up under the pounding of heavy mechanized army equipment. Heavy military and civilian traffic on too-narrow road. Traffic near military bases and defense plans, increase of	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2 N '40 p3 N '40 p4
New line installed on lower level ready to connect to existing gas main. WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge. Surfacing on numerous highways of strategic value will not long stand up under the pounding of heavy mechanized army equipment. Heavy military and civilian traffic on too-narrow road. Traffic near military bases and defense plans, increase of Factory parking area and traffic congestion on 4-lane US 101 at	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2 N '40 p3 N '40 p4 N '40 p4
WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge. Surfacing on numerous highways of strategic value will not long stand up under the pounding of heavy mechanized army equipment. Heavy military and civilian traffic on too-narrow road. Traffic near military bases and defense plans, increase of Factory parking area and traffic congestion on 4-lane US 101 at Consolidated Aircraft Corp. plant near San Diego.	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2 N '40 p3 N '40 p4
WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge. Surfacing on numerous highways of strategic value will not long stand up under the pounding of heavy mechanized army equipment. Heavy military and civilian traffic on too-narrow road. Traffic near military bases and defense plans, increase of Factory parking area and traffic congestion on 4-lane US 101 at Consolidated Aircraft Corp. plant near San Diego. Congestion of traffic on Atlantic Blvd. north of Long Beach where	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2 N '40 p3 N '40 p4 N '40 p4 F '41 p2
WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge. Surfacing on numerous highways of strategic value will not long stand up under the pounding of heavy mechanized army equipment. Heavy military and civilian traffic on too-narrow road. Traffic near military bases and defense plans, increase of Factory parking area and traffic congestion on 4-lane US 101 at Consolidated Aircraft Corp. plant near San Diego. Congestion of traffic on Atlantic Blvd. north of Long Beach where thousands of workers are employed at Vultee airplane plant.	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2 N '40 p3 N '40 p4 N '40 p4
WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge. Surfacing on numerous highways of strategic value will not long stand up under the pounding of heavy mechanized army equipment. Heavy military and civilian traffic on too-narrow road. Traffic near military bases and defense plans, increase of Factory parking area and traffic congestion on 4-lane US 101 at Consolidated Aircraft Corp. plant near San Diego. Congestion of traffic on Atlantic Blvd. north of Long Beach where thousands of workers are employed at Vultee airplane plant. Traffic to and from March Field Military Aviation Reservation and	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2 N '40 p3 N '40 p4 N '40 p4 F '41 p2 F '41 p2
WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge. Surfacing on numerous highways of strategic value will not long stand up under the pounding of heavy mechanized army equipment. Heavy military and civilian traffic on too-narrow road. Traffic near military bases and defense plans, increase of Factory parking area and traffic congestion on 4-lane US 101 at Consolidated Aircraft Corp. plant near San Diego. Congestion of traffic on Atlantic Blvd. north of Long Beach where thousands of workers are employed at Vultee airplane plant. Traffic to and from March Field Military Aviation Reservation and Camp Haan on Perris highway in Riverside Co.	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2 N '40 p3 N '40 p4 N '40 p4 F '41 p2
New line installed on lower level ready to connect to existing gas main. WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge. Surfacing on numerous highways of strategic value will not long stand up under the pounding of heavy mechanized army equipment. Heavy military and civilian traffic on too-narrow road. Traffic near military bases and defense plans, increase of Factory parking area and traffic congestion on 4-lane US 101 at Consolidated Aircraft Corp. plant near San Diego. Congestion of traffic on Atlantic Blvd. north of Long Beach where thousands of workers are employed at Vultee airplane plant. Traffic to and from March Field Military Aviation Reservation and Camp Haan on Perris highway in Riverside Co. Rubber/rubber conservation	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2 N '40 p3 N '40 p4 N '40 p4 F '41 p2 F '41 p2 F '41 p6
New line installed on lower level ready to connect to existing gas main. WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge. Surfacing on numerous highways of strategic value will not long stand up under the pounding of heavy mechanized army equipment. Heavy military and civilian traffic on too-narrow road. Traffic near military bases and defense plans, increase of Factory parking area and traffic congestion on 4-lane US 101 at Consolidated Aircraft Corp. plant near San Diego. Congestion of traffic on Atlantic Blvd. north of Long Beach where thousands of workers are employed at Vultee airplane plant. Traffic to and from March Field Military Aviation Reservation and Camp Haan on Perris highway in Riverside Co. Rubber/rubber conservation Varieties of tire damage caused by improper vehicle maintenance.	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2 N '40 p3 N '40 p4 N '40 p4 F '41 p2 F '41 p2 F '41 p6 N '42 p3
WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge. Surfacing on numerous highways of strategic value will not long stand up under the pounding of heavy mechanized army equipment. Heavy military and civilian traffic on too-narrow road. Traffic near military bases and defense plans, increase of Factory parking area and traffic congestion on 4-lane US 101 at Consolidated Aircraft Corp. plant near San Diego. Congestion of traffic on Atlantic Blvd. north of Long Beach where thousands of workers are employed at Vultee airplane plant. Traffic to and from March Field Military Aviation Reservation and Camp Haan on Perris highway in Riverside Co. Rubber/rubber conservation Varieties of tire damage caused by improper vehicle maintenance. Five month old guayule seedlings in government nursery at Salinas.	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2 N '40 p3 N '40 p4 N '40 p4 F '41 p2 F '41 p2 F '41 p6 N '42 p3 F '43 p11
WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge. Surfacing on numerous highways of strategic value will not long stand up under the pounding of heavy mechanized army equipment. Heavy military and civilian traffic on too-narrow road. Traffic near military bases and defense plans, increase of Factory parking area and traffic congestion on 4-lane US 101 at Consolidated Aircraft Corp. plant near San Diego. Congestion of traffic on Atlantic Blvd. north of Long Beach where thousands of workers are employed at Vultee airplane plant. Traffic to and from March Field Military Aviation Reservation and Camp Haan on Perris highway in Riverside Co. Rubber/rubber conservation Varieties of tire damage caused by improper vehicle maintenance. Five month old guayule seedlings in government nursery at Salinas. Machine transplanting guayule seedlings.	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2 N '40 p3 N '40 p4 N '40 p4 F '41 p2 F '41 p2 F '41 p6 N '42 p3 F '43 p11 F '43 p11
WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge. Surfacing on numerous highways of strategic value will not long stand up under the pounding of heavy mechanized army equipment. Heavy military and civilian traffic on too-narrow road. Traffic near military bases and defense plans, increase of Factory parking area and traffic congestion on 4-lane US 101 at Consolidated Aircraft Corp. plant near San Diego. Congestion of traffic on Atlantic Blvd. north of Long Beach where thousands of workers are employed at Vultee airplane plant. Traffic to and from March Field Military Aviation Reservation and Camp Haan on Perris highway in Riverside Co. Rubber/rubber conservation Varieties of tire damage caused by improper vehicle maintenance. Five month old guayule seedlings in government nursery at Salinas. Machine transplanting guayule seedlings. War-surplus materials	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2 N '40 p3 N '40 p4 N '40 p4 F '41 p2 F '41 p2 F '41 p6 N '42 p3 F '43 p11
WORLD WAR II-RELATED Access roads; army trucks hauling arms through woods on dirt access road. Blackouts; traffic signal blackout unit. Division of Highways men at reunion in South Pacific. Roads and bridges, inadequacy of for military vehicles Military vehicles hampered by inadequate road. Army tanks, which some highways and bridges will not accommodate. Troops being transported across narrow and inadequate bridge. Surfacing on numerous highways of strategic value will not long stand up under the pounding of heavy mechanized army equipment. Heavy military and civilian traffic on too-narrow road. Traffic near military bases and defense plans, increase of Factory parking area and traffic congestion on 4-lane US 101 at Consolidated Aircraft Corp. plant near San Diego. Congestion of traffic on Atlantic Blvd. north of Long Beach where thousands of workers are employed at Vultee airplane plant. Traffic to and from March Field Military Aviation Reservation and Camp Haan on Perris highway in Riverside Co. Rubber/rubber conservation Varieties of tire damage caused by improper vehicle maintenance. Five month old guayule seedlings in government nursery at Salinas. Machine transplanting guayule seedlings.	J/F '50 p50 N '41 p3 Aug '42 p4 J/F '45 p25 N '40 p1 N '40 p2 N '40 p3 N '40 p4 N '40 p4 F '41 p2 F '41 p2 F '41 p6 N '42 p3 F '43 p11 F '43 p11

182

A		
Adams, Kenneth C.		N/D '57 p25
Adams, Remeti C. Aeppli, Ernest		J/A '61 p60
Amesbury, H. Clyde		S/O '57 p48
Andersen, Neal E.		S/O '63 p48
Anderson, A.L.		N/D '55 p45
Asbill, J.M.		M/A '61 p23
Austgen, Frank R.		J/A '55 p48
Avery, George B.		M/A '66 p48
Axtman, William F.		J/A '55 p48
Ayanian, Haig	M/A '62 p70;	J/F '63 p59
-	W/A 02 p/0,	3/1 03 p3/
B		
Bagshaw, Fred	M/J '53 p50;	N/D '58 p9
Baker, Louis O.		S/O '66 p44
Balfour, Frank C.	S/O '55 p42; J/A '58 p49;	J/F '61 p48
Banks, Harvey O.		J/A '56 p70
Batham, Lloyd A.	NID (54 26 14 (56 25	M/A '52 p29
Baxter, Frank E.	N/D '54 p36; J/A '56 p35;	J/F '62 p60
Beaton, John L.	J/F '63 p57;	S/O '63 p48
Bedford, Thomas A.	Jul '39 p22;	M/A '51 p21
Beer, Charles G.		M/A '62 p29
Belford, Herbert E.		M/A '62 p77
Belknapp, Fred R.		J/A '53 p48
Bender, O.		S/O '66 p39
Benedict, H. W.		M/A '66 p48
Bergroth, Rudolph		J/F '63 p56
Beuthel, Raymond L.		J/A '55 p47
Bezzone, A.P.		S/O '66 p39
Bigelow, Howard Thayer ("Tom")		S/O '63 p63
Birnie, A.C.		M/A '62 p70
Block, William		J/F '62 p35
Booker, B.W. Bosso, Oliver R.		M/A '52 p25 J/F '48 p3
Botts, Dr. E.D.		J/F '60 p59
Boucher, Fred. L. and family.		J/F '65 p58
Bovey, Clarence E.	M/J '53 p50;	N/D '58 p10
Bowers, H.; Dana [shade tree pioneer]	W/3 33 p30,	S/O '64 p60
Boyd, Anson	Jun '40 p11;	M/A '62 p72
Bradford, Robert B.	J/F '59 p13;	S/O '61 p1
Brianas, Chistos	3/1 37 p13,	J/A '66 p48
Briney, Albert C.		J/A '62 p54
Brinkerhoff, O.B.		M/J '53 p48
Brown, Paul		M/A '66 p48
Brunk, George C.		M/J '51 p42
Burns, C.R. (Bob)		M/A '62 p78
Burnside, Frank E.		J/A '53 p48
Burrill, John C.		M/A '62 p69
Busby, Forest N.		S/O '56 p38
Byroads, Harold		M/A '58 p53
• /		- r -

C		
Caine, Chester L. [obit.]		M/J '45 p26
Campbell, L.V.		M/J '53 p48
Cardwell, Mark L.		M/J '62 p33
Carleton, C.C.		O '39 p12
Carleton, C.C.		J/F '49 p23
Carlisle, Robert J.		S/O '57 p48
Carver, Arnold; wins Hewes Award for radio communication		S/O '54 p33
Casey, Richard T.		J/A '63 p69
Chambers, Frank A.; made Chief Deputy Director		N/D '59 p19
Chase, Ralph V.		J/F '62 p25
Clark, Frank W.	Jan '39 p3;	May '39 p2
Cobb, William R.	3un 37 p3,	J/F '58 p59
Collins, Ray		N/D '58 p45
Colwell, Brian T.		J/A '66 p48
Cook, George N.		M/A '62 p73
Cooney, Russell J.		N/D '59 p19
Cooper, Herbert L.		S/O '52 p26
Cortelyou, Spencer V. ["Father of the Freeways"]	J/A '52 p46;	S/O '49 p19;
Cowgill, Paul	3/11 32 p 10,	M/J '64 p70
Cramer, I.F. ("Ferd")		J/F '61 p70
Crandall, Richard R.		J/F '67 p46
Crawford, Wayne H.		M/J '65 p63
Creed, John H.		M/J '62 p31
Cressy, Frank B.		M/A '63 p77
Cully, William S.		J/F '63 p58
Cushman, Freeman H.		J/A '49 p38
D		viii is poo
Daniels, W. K.		J/F '55 p56
Darby, Claud H.		N/D '47 p34
Darling, Harry C.		M/A '51 p31
Datel, Robert J.		S/O '66 p44
Dauchy, Fred B.		M/A '55 p48
Davidson, John B.		N/D '53 p60
Davis, Coral Porter		J/F '62 p79
Davis, Colai Folici Davis, Earl David		M/J '45 p26
Deffebach, Richard		J/F '63 p43
Dekema, Jacob	S/O '55 p51;	J/A '62 p35
Dennis, T.H.	5/O 33 p31,	S/O '49 p24
Dolliver, William S.		J/A '60 p71
D'Ooge, Leonard		Apr '42 p9
Dougherty, Clementine		M/A '59 p45
Downes, Nate W.		J/F '55 p56
Dreman, Ann		S/O '57 p58
Drew, Eldridge D.		M/J '64 p68
Dudman, Arthur F.		N/D '59 p21
Duffy, Raymond P.		S/O '55 p45
Dunckhorst, Paul		J/F '54 p50
Dunham, Neil		M/A '64 p69
Durkee, Frank B.		J/F '58 p41
Dwyer, L. B.		M/A '66 p48
- ·· <i>yy</i> 2-		30 P 10

E		
Easterday, Ora T.		J/A '52 p28
Erreca, John		3/A 32 p26
As member of CHC		J/F '61 p37
Being sworn in as Director of PW		M/A '63 p42
F		1.1,11 05 p .=
		N E / T 4 E A . 1
Fahey, W.L.		M/J '54 p1
Frykland, Basil	M/I 556 - 46, N/D 550 - 20.	J/A '58 p51
Funk, L.L.	M/J '56 p46; N/D '59 p20;	J/A '63 p67
G		
Gallagher, Bernard M.		S/O '57 p51
Gallagher, James		S/O '54 p60
Gatoura, N.G.		J/A '63 p69
Garrison, Fred R.		M/A '62 p77
Gatoura, N.G.		J/A '63 p69
Gay, Harvey P.		S/O '52 p27
German, Art		J/F '67 p46
Gibson, Lester H. [pioneer road builder]		N/D '49 p15
Gilbert, A.K.	16/1/27	J/A '56 p64
Gillis, Lyman R.	M/J '56 p48;	J/F '60 p2
Gillis, R.M.	Apr '38 p27; N/D '50 p10;	N/D '55 p42
Gilliss, C.M. (Max)	J/F '53 p49; J/F '58 p41; S/O '58 p33;	N/D '58 p9
Goodwin, James H.		S/O '55 p45
Gough, William J. Grant, Eric P.		M/A '53 p44 S/O '66 p44
Green, Clifton F.		J/F '63 p59
Green, Frank F.		J/A '62 p54
Green, John W.		M/A '60 p63
Greene, George A.		M/A '63 p11
Griffin, A. D.		J/A '60 p69
Gripper, Edward S.	S/O '49 p23;	N/D '52 p57
Grumm, Fred J.	F '43 p13;	J/A '50 p2
Accepting certificate from George T.		N/D '52 p38
Accepting plaque from James C. Coor		M/A '57 p51
Gustafson, Charles F.		J/A '66 p48
H		1
Hansen, Ann reviewing scale model of fut	ure freeway project	J/F '63 p64
Hellesoe, George F.; guests at retirement b		J/A '56 p35
Helwer, Sam (Dist. 1 engineer).	unquet for.	M/A '65 p28
Halstead, Wade O.		S/O '59 p50
Hamblin, W.H.		N/D '50 p49
Hampton, Earl W.		N/D '59 p21
Hansen, Ann		J/F '63 p48
Hanson, Emil		J/F '61 p71
Harlan, Jacob M.		S/O '53 p50
Harris, Milton	M/A '49 p41; M/A '53 p52;	N/D '54 p36
Harris, Paul M.	•	J/A '61 p60
Hart, Alan S.	M/A '53 p53; M/A '57 p47; J/A '62 p35;	J/A '64 p55

H Continued

H Continued		
Hart, Samuel Alexander		Apr '38 p28
Haselwood, Fred W.	J/A '52 p47;	M/J '50 p19
Hatton, Mary	_	S/O '56 p39
Havlik, Stanley		M/A '62 p79
Hawley, George W.		Apr '42 p19
Hawthorne, Henry		M/A '62 p77
Hayler, R.A.		J/F '57 p47
Hellesoe, George F.		J/A '56 p35
Helwer, Sam		M/A '57 p47
Henderlong, Carl A.		N/D '58 p57
Henderson August H.		F '43 p9
Henry, Ben		M/A '54 p60
Herd, Charles M. (Tex)		M/A '63 p74
Hess, Rudolph	S/O '56 p38;	J/F '61 p48
Higgins, E. Roy	Sie de pre,	M/A '62 p69
Hill, George A.	J/F '60 p2; J/F '63 p43;	S/O '63 p46
Hill, Harold H.	0/1 00 p2, 0/1 03 p 13,	J/A '54 p60
Hill, Stuart L.		J/A '66 p48
Hilton, Albert A.		J/A '62 p55
Himelhock, Alfred L.		S/O '57 p38
Hine, Paul		J/F '61 p74
Hineman, Howard R.		J/A '65 p27
Hines, Grace Marie		S/O '65 p52
Hippenstiel, Clyde (tennis champion)		S/O '53 p48
Hixson, Claude H.		M/A '63 p79
Hodges, James M.		M/J '52 p27
Hodges, Joe B.		M/J '52 p27
Hoffman, Edgar R.		S/O '63 p31
Hollis, Robert L.		J/F '52 p49
Hollister, J.M.		N/D '50 p32
Hollister, Leonard C.	0.44	J/A '63 p71
Holmes, W.H.	O '42 p15;	S/O '52 p27
J		
Jones, Robert Leroy		S '40 p25
Jones, Willis F.		M/A '53 p44
Jorgenson, J. Frank	J/F '57 p47;	S/O '62 p59
Jurkovich, William J.; wins bridge design award	N/D '59 p45;	S/O '66 p38
K	r	
Kagan, Harry L.		J/A '64 p56
Kane, Clyde V.	S/O '52 p25;	M/A '53 p52
Kane, Joseph M.	F - 7	S/O '56 p39
Katerndahl, Ella		M/A '59 p51
Keating, Albert		M/A '62 p79
Keaton, Morgan		Mar '40 p12
Keller, Robert N.		J/A '66 p48
Kenfield, Keith		M/J '45 p27
Kenyon, Margaret		M/J '55 p48
King, Edward F.		J/A '61 p65
• · · · · · · · · · · · · · · · · · · ·		
Kile, Harry L.		J/A '55 p47
Kinsey, Ralph D.		M/J '65 p63

K Continued		
Klauser, Helen P.	J/A '55 p27;	S/O '63 p13
Kleinman, William F.	3/A 33 p27,	M/A '66 p48
Koltnow, Peter G.		J/F '67 p46
Kono, Tommy [weight-lifting champ.] at his desk in drafting ro	oom: lifting barbell	N/D '54 p30
Kozak, John J.	John, mining burben.	J/F '65 p74
Kriegh, H.R.		J/F '55 p56
Kroeck, Louis G.		S/O '66 p44
L		5/ O 00 p 11
		M/A '62 m20
LaForge, Harold B.		M/A '62 p29
Lamb, Albert L.		M/J '57 p50
Landers, Walter		S/O '64 p71
Langford, Dave		N/D '55 p47
M		
Marsden, Warren P. to Judicial Council		J/F '64 p48
Marshall, Col. Robert B.		Aug '37 p34
McCarthy, Leo J., Sr.		M/J '55 p48
McCarty, Henry C.		J/F '65 p73
McCarthy, Leo J., Sr.		M/J '55 p48
McCarty, Henry C.		J/F '65 p73
McClung, Charles A.		S/O '48 p45
McCorkle, Nathan C.	I/D (50 00 010 (50 0	J/A '63 p63
	N/D '53 p29; S/O '59 p3;	J/F '66 p41
McCoy, George T.		3.5/4.665.00
McCush, Samuel (retired highway foreman)		M/A '65 p28
McDougall, George B.		O '38 p15
McElvy, Carl C.		M/J '63 p58
McGinness, Gillette G.		S/O '65 p45
McMahon, J.E.		S/O '53 p49
McManus, Frank W.		M/A '54 p58
McMillan, D.H.		J/F '56 p47
McNeely, William C.		S/O '59 p51
McPartland, John W.		S/O '54 p61
McWilliams, James T. Mendenhall, Kenneth		J/A '52 p19
Mickelsen, Marcia J.		J/F '52 p48 S/O '66 p44
Miles, H.S.		M/A '56 p72
Miller, Carl A.		J/F '52 p48
Mitchell, Stewart	S/O '53 p49;	M/A '55 p48
Montell, Frederick W.	5/O 33 p+7,	J/A '65 p47
Montgomery, Clifton R.		M/J '50 p9
Montgomery, Cranston P.		M/A '52 p27
Montgomery, Mr. and Mrs. Z.J.		N/D '50 p33
Moore, Fred C.		S/O '65 p53
Moore, John D.		M/J '54 p62
Morgan, John P.		M/A '62 p79
Moskowitz, Karl accepting 1964 Hewes Award.		J/A '64 p19
Murphy, John P.	S/O '57 p38;	J/F '60 p2
Murray, Myrtle V.	2. 3 c · pc o,	D '41 p17
Munro, Russell S., Deputy Directior of PW.		M/J '54 p18
, , , , , , , , , , , , , , , , , , ,		г

N			
Nash, A.M.	S '42 p18; S/O '52 p25; M/A '56 p72	· M/I '61 n21·	S/O '62 p59
Nett, Walter M.	3 42 p18, 5/O 32 p23, M/A 30 p72	, w/3 or p31,	N/D '54 p36
Nicholson, R. I.			J/A '65 p46
Nickerson, Merrit R. [Division of	Hwys photographer]	M/J '55 p39;	J/A '60 p54
Normington, Edwin B.	11wys. photographer	141/3 33 p37,	J/A '52 p27
Norton, Harold P.			M/A '52 p2/
			WI/A 32 p20
O			
Obermuller, John H.			M/J '55 p48
O'Bier, Ray E.			M/A '61 p23
P			
Packard, Luke D.			J/A '53 p49
Palm, Charles O.			N/D '50 p33
Panhorst, F.W.			F '37 p18
Parker, Earl A.			J/A '55 p49
Paule, Sidney			J/A '63 p69
Payne, H.L.			S/O '66 p39
Peck, W.E.			N/D '49 p46
Peddy, Jack E.			J/A '64 p60
Pengilly, Dana G.			J/A '63 p67
Peterson, T.C.			M/A '52 p27
Pierson, Carleton			J/A '55 p47
Pingry, George S.			S/O '56 p38
Poage, P.T.			M/J '58 p45
Pomeroy, George G.			S/O '54 p61
Pope, Charles Stockton			Apr '38 p28
Poss, E.G.			M/A '50 p32
Potter, R.V.			S/O '62 p59
Powers, Leavitt			M/A '59 p49
Powers, Meta			M/A '59 p49
Purcell, Charles H.	O '37 p23; Jan '43 p	2; J/A '51 p1;	S/O '51 C
R			
Raab, Norman C.		J/F '48 p3;	J/A '63 p66
Ramsey, Richard H.		•	J/A '62 p55
Randolph, Helen F.			J/A '54 p60
Reber, Bert A.			M/J '54 p61
Redden, L.R. (Lee)			J/F '62 p62
Reece, Marilyn [first female Div.	of Hwys. civil engineer]		M/A '55 p29
On job at 3-level San Diego-	Santa Monica Fwy. Interchange.		J/F '63 p47
Reed, Ernest J.			J/A '66 p48
Reed, Robert E.			M/J '63 p63
Remington, Wilfred G.			M/A '62 p5
Reynolds, Frank M.			J/F '63 p60
Reynolds, Lloyd B.			J/F '59 p61
Reynolds, Rodney F.			M/A '61 p77
Remington, Wilfred G.			M/A '62 p5
Reynolds, Frank M.			J/F '63 p60
Reynolds, Lloyd B.			J/F '59 p61
Reynolds, Rodney F.			M/A '61 p77
Reynolds, Thomas W.			M/J '62 p60

D Continued	
R Continued	3.5/4.76050
Rhodes, William T.	M/A '60 p50
Richardson, G.L.	J/F '57 p47
Richardson, Rodney C.	J/F '55 p59
Ritz, John H.	S/O '60 p71
Rivett, A.I.	N/D '55 p45
Roberts, Del	J/A '60 p71
Roberts, F.N.	J/A '55 p48
Robinson, Richard W.	J/F '57 p50
Rockingham, William Henry	J/F '46 p36
Rodgers, Earl	J/A '66 p48
Root, Arthur W.	M/J '62 p58
Root, Robert H.	Jul '42 p19
Rose, Cass M.	J/A '62 p52
Rowe, R. Robinson	J/F '61 p73
Rowland, Mabel Perryman	J/F '53 p48
Rust, Clyde W.	M/J '59 p42
Ryman, Dale C.	M/A '66 p48
Ryon, Charles H.	M/A '52 p30
S	
Sachse, Franz R.; made Asst. Director of PW F '40 p4;	Jun '42 p18
Saldine, E.J.	S/O '58 p64
Schoellkopf, Andrew B.	S/O '60 p69
Schulman, Marvin A.; wins welding design award	S/O '64 p59
Schumaker, Carol J/F '63 p46;	J/F '65 p69
Checking blueprints for assignment with Design section.	J/F '65 p70
Reviewing a route-planning study with associate highway engineers.	J/F '65 p69+
Scott, Earl T. retirement party for	N/D '55 p43
Scott, Ernest R.	M/J '59 p46
Sedwick, William D.	J/A '61 p52
Seitz, Ernest L.	M/A '52 p27
Sellier, Bert	J/A '60 p62
Seymour, Lewis W.	J/F '52 p48
Sherick, Ralph M.	J/A '64 p61
Sheridan, Paul C.	J/F '65 p74
Shervington, Charles A.	M/J '61 p31
Shillito, Robert M.	S/O '51 p56
Shulman, Marvin A. N/D '59 p45;	S/O '64 p59
Simmons, Albert Edward; wins engineering doctorate	M/A '61 p75
Sinclair, Joseph P. M/A '52 p25; M/J '59 p26;	M/J '64 p69
Skeggs, Col. John (Jno.) Hunt	M/A '52 p22
Smith, George W.	N/D '47 p34
Smith, Harvey B.	J/A '63 p26
Smith, Howard M.	S/O '66 p44
Smith, James Robert	J/A '61 p51
Smith, Marian	J/F '63 p48
Smith, William A.	S/O '52 p26
Smitherum, Harrison	M/J '53 p49
Snedden, Hazeldean	J/F '63 p60
Sorenson, Earl E.	J/F '63 p57
Stalnaker, R.H.	J/F '49 p26

S Continued		
Stalnaker, R.H.		J/F '49 p26
Standley, James G.		N/D '50 p32
Stanford, John H.	N/D '58 p51; J/F '60 p46;	S/O '63 p38
Stanley, J.N.	17/D 38 p31, 3/1 00 p40,	J/A '63 p69
Stanley, Lyle		J/A '63 p26
Stanton, Thomas E.		M/J '51 p8
Stauff, James A.		M/A '51 p25
Steen, Jesse Hillery		J/F '58p42
Stein, John A.		M/A '58 p56
Stepp, Harlan L.		N/D '51 p48
Stover, Harvey D.		N/D '51 p61
Sullivan, E. Q.		J/A '50 p14
Sullivan, Mae		M/A '62 p79
Sunbury, Roger D.		M/A '62 p8
Sweet, Charles L.		M/A '62 p8
Sweet, Charles P.		M/J '60 p64
Switzer, Baynard A.		J/A '65 p45
Sorenson, Earl accepting certificate of app	preciation from Safety Committee.	J/F '63 p57
T		p
Tanaka, Tek J/A '66 p48		
Taylor, Earl W.		J/F '66 p48
Teel, Roy C., Sr.		M/A '52 p29
Telford, Edward T.	M/A '53 p52; M/J '56 p14;	J/A '62 p35
Templin, Newton H.		J/A '66 p47
Thomas Ira G.		J/A '50 p55
Thomas, Robert L.		M/J '48 p19
Thompson, George W.		M/A '59 p55
Thorp, Charles E.		M/A '52 p28
Tiedemann, Edwin L.		J/F '67 p46
Tinney, Edward L.		J/F '62 p61
Trask, J.W.	M/A '56 p72; M/A '57 p47; S/O '60 p10;	J/F '62 p60
Tremper, Bailey		M/A '62 p78
Tremper, Richard A.		M/A '54 p56
Trenholm, Kenneth M.		J/A '60 p68
Troop, Clarence T.		J/A '63 p69
Tudor, Ralph A.	D '40 p19; J/F '48 p3;	M/J '49 p55
V		
Van der Goes, H.C.		M/J '54 p61
Van Etten, P.H.		J/A '51 p21
Van Riper, Donald P.		J/A '64 p63
Van Stan, Robert W.		J/F '61 p75
Vellom, Dorothy S.		N/D '55 p14
	38 p1; Mar '38 p1; Mar '38 p1; Mar '38 p1;	J/F '60 i.cvr
von Bergen, Harold E., who lost his life i	n flood rescue work.	Mar '40 p4

\mathbf{W}		
Waddell Thomas B.		S/O '55 p44
Waight, Vernon H.		J/A '66 p48
Waite, Charles E.	N/D '50 p10; S/O '55 p43;	N/D '55 p47
Wagner, Elton F.	1 / 1 /	S/O '60 p70
Waite, Charles E.	N/D '58 p10;	S/O '63 p46
Waite, Clement F.		J/F '57 p51
Wallace, E.E. showing Mrs. Wallace wrist watch presented	d to him by associates.	S/O '55 p43
Wingerd, Norman		J/F '67 p46
Winslow, George R.		Jun '41 p13
Winter, C.C. ("Buck")		M/J '63 p11
Wise, Earl S.		M/A '54 p60
Withycombe, Earl		N/D '50 p10
At retirement dinner.		M/A '57 p48
	17; N/D '59 p20; J/F '60 p2;	J/F '67 p36
Accepting plaque naming him one of APWA 's "top-		· · · · · · · · · · · · · · · · · · ·
men-of-the-year," 1963.	r	S/O '63 p50
Wood, Eleanor		J/A '66 p48
Wood, Howard C.		M/A '62 p73
Woodhams, H.E.J.		J/A '61 p60
Woodin, Clarence F.		N/D '53 p61
Woodson, James B.		J/A '54 p60
Wright, Albert F.		J/F '53 p48
Wright, James F.		J/F '59 p13
Y		CALL CAR PAGE
_		C/O '(0 (0
Young, F.H. ("Fair")		S/O '60 p69
Younger, Robert C.		J/A '61 p60
Z		
Zander, Gordon		J/F '53 p48
Zerswah, Robert E.		S/O '66 p39
Zook, Clarence V.		M/J '59 p46
Zook, Ralph W.		M/A '61 p64
Non-Employees		
Caldecott, Thomas E.		J/A '50 p23
California Highway Commissioners		1
Baker, Harrison R.		S/O '43 p5
Ballou, Walter T.		O '40 p19
Barrett, Lawrence		Apr '39 p8
Bishop, Robert L.	J/F '56 p33;	S/O '58 p33
Bozzani, Amerigo	•	Apr '39 p8
Bronson, John O.	M/A '58 p51;	S/O '58 p32
Brown, Homer P.	1	S/O '43 p4
Chambers, Frank A.		J/F '59 p13
Chambers, Walter		Aug '40 p20
Chase, H. Stephen	N/D '51 p21;	J/F '55 p65
Cooper, Jack	r,	N/D '59 p19
Cristina, Vernon J.		J/F '67 p13
Darlington, Newell Dyke [member of original CHC] a	and Frank Durkee	M/J '56 p47
Erreca, JohnSee also Employees		J/F '61 p37
<i>x</i> ·· <i>y</i> ·· ··		Γ

CHC Continued

CHC Continued		
Guthrie, James A.	S/O '43 p4; J/F '57 p43;	
	S/O '58 p32; J/F '61 p37; M/A '65 p67;	S/O '66 p40
Heller, Alfred E.		J/A '64 p21
Hitchcock, L.G.		Apr '39 p8
Houghteling, Joseph C.		J/F '65 p24
Jennings, Fred C.		J/F '67 p12
Kennedy, Rolland Cashel (Cas	SS)	N/D '50 p54
Kofman, Abraham	S/O '61 p5;	M/A '64 p35
Lee, Moon Lim		J/F '67 p13
Leigh, Charles Thompson		M/J '49 p56
Luce, Gordon C.		J/F '67 p12
Luddy, Arthur T.		J/F '63 p17
McClure, Robert E.	J/F '54 p45; J/F '58 p24;	S/O '58 p33
Maghetti, C.A.		J/F '55 p59
Nielsen, Iener W.		Apr '39 p9
Payne, Franklin S.		J/F '62 p2
Penfield, L.L.		Jul '42 p18
Purchio, John L.		J/F '60 p46
Sandelin, Walter F.		S/O '43 p5;
Savage, George W.	J/F '48 p33;	S/O'49 p30
Scott, Byron N.	-	Apr '39 p9
Smith, Arnholt C.		S/O '43 p4;
Speers, Fred W.	J/F '55 p65;	S/O '58 p32
Vaughn, Bert L.	•	Apr '39 p9
Warlow, Chester H.	S/O '43 p5; J/A '52 p54; J/A '58 p47; J/F '57 p43;	S/O '58 p32
Whitehurst, William S.		M/A '65 p67
Woolley, Roger S	M/A '59 p33;	J/F '63 p17
Brown, Elbert C. [US BPR]	•	M/A '57 p72
Bugge, William A. [President of A	ASHO]	J/F '57 p51
Camarillo, Don Adolfo at Camarill	o Fwy. dedication (Ventura Co.)	S/O '53 p26
Ellis, James W. [teen appointed mo	ock Director of PW]	J/A '56 p66
Foxen Benjamin [Foxen Rancho]	-	S/O '50 p43
Gibson, Phil S.		May '39 p2
Hadley, George C. [L.A. Deputy C	Thief Council	J/F '64 p27
Hoberg, George [California Safety		M/J '53 p51
Hyatt, Edward		May '39 p2
Johnson, Charles G.		May '39 p2
Johnson, Alfred E. [AASHO]		J/F '55 p59
Knudsen, Mrs. Valley M. [Los Ang	geles Beautiful founder]	J/F '67 p46
Merrill, Gen. Frank D.	-	J/F '56 p53
Moore, Edwin S. [secretary and ge	neral manager of CSAA]	N/D '53 p55
Morrisey, N.J. [State Director of P		N/D '53 p63
O'Neill, J.E. [head of AAA]	•	N/D '51 p58
MacLachlan, Kenneth A. [pioneer	highway economist]	M/J '58 p47
Pegram, Reginald B. [L.A. Deputy		J/F '64 p27
Polk, Martin C. [pioneer engineer]		J/A '52 p29
Riley, Harry B.		May '39 p2
Tallamy, Bertram D. being sworn i	in as FHA	M/A '57 p51
Warren, Earl		May '39 p2
Whitton, Rex M. [AASHO, FHA]	J/F '56 p53;	J/F '61 p75
	1 /	*

I-80 [US 40] at Donner Summit in winter; Donner Lake in background

Golden Gate Bridge across entrance to San Francisco Bay [color drawing]

Kennett Dam, key unit of Central Valley Project [color drawing] US 395; Eastern slope of the High Sierra north of Bishop (Inyo Co.)

Rt. 1 (Ocean Shore Hwy.) under construction in San Mateo Co.

Valley Blvd. as seen through orange groves near Pomona

Jul Aug Sep Oct Nov Dec	Rt. 1; Carmel-San Simeon Hwy., where sea and mountains meet Rt. 70 [US 40-Alt.], the Feather River Hwy. and its bridges. Rt. 99; stretch of new state highway in Kern Co. Alameda Co.; construction activity in Altamont Pass Rt. 136-190; Lone PineDeath Valley Hwy. (Inyo Co.) Rt. 1; Ocean Shore Hwy. just opened in San Mateo Co.
1938 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec	US 101; new four-lane divided highway through Montecito North Figueroa St. Viaduct on Rt. 159 [Rt. 165] in Los Angeles Clearing I-80 [US 40] over Donner Summit during snow storm Main line railroad bridge across Los Angeles River wrecked by flood Mt. Shasta seen from I-5 [US 99]. Sacramento River in foreground Rt. 180 under construction in Kings River Canyon (Fresno Co.) Rt. 203 [Rt. 112] Mammoth Lakes Hwy. near Twin Lakes (Mono Co.) US 50; Echo Summit relocation Rt. 123 [Leg. Rt. 14] showing circuitous alignment (Contra Costa Co.) Rt. 46 [Rt. 33]; York Mt. Grade, CayucasTempleton (San Luis Obispo Co.) Rt. 41; Squaw Valley Grade near General Grant National Park (Fresno Co.) Topanga Canyon road, showing winding grade and narrow bridge (L. A. Co.)
1939 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec	Culbert L. Olson, Governor of California. Inaugurated January 2 1939 Rt. 78; winding section between Julian and Descanso (San Diego Co.) Shasta Dam under construction scenes at site on Sacramento River Snow surveyors measuring water content of Sierra pack Redding; railroad bridge across Sacramento Rvr. under construction I-80 [Rt. 37; US 40]; Donner Lake and view from Donner Summit Rt. 14 [Rt. 23]; Newhall Tunnel Hwy. from historic Freemont Pass (L.A. Co.) Rt. 17 [Rt. 5] between Los Gatos and Santa Cruz Presidio Tunnel approach to Golden Gate Br. under construction, S.F. Rt. 180; completed Kings River Canyon Hwy. (Fresno Co.) Pit River Bridge across site of Shasta Dam Reservoir [drawing] Friant Dam [drawing], and scenes at ground breaking

Jan

Feb Mar

Apr May

Jun

Jan	Rt. 14 [Rt. 23]; four-lane highway eliminating Newhall Tunnel (L.A. Co.)	
Feb	Snow removal scene on Donner Summit (I-80) [US 40]	
Mar Apr	View from Donner Summit after snow removal (I-80) [US 40] Flooded orchard and farm lands near Princeton, Colusa Co.	
May	Rt. 1; slide prevention work on Pacific Palisades (L.A. Co.)	
Jun	Treasure Island in San Francisco Bay	
Jul	Us 101; Redwood Hwy. through Culbert L. Olson Grove (Humboldt Co.)	
Aug	US 50; rugged scenery on Echo Summit relocation over the Sierra	
Sep	Carquinez Toll Br. across Straits of Carquinez on I-80 [US 40]	
Oct	Arroyo Seco Pkwy. (Rt. 110) between Los Angeles and Pasadena	
Nov	Rt. 1; San SimeonCarmel Coast Hwy. and Big Creek Br.	
Dec	Russian Gulch concrete arch bridge (Rt. 1, Mendocino Co.)	
1941		
Jan	Arroyo Seco Pkwy. showing divided hwy., paved channel, and overheads	
Feb	Rotary snow plow widening and clearing I-80 [US 40] near Donner Summit	
Mar	Pit River Bridge under construction on I-5 [US 99], Shasta Co.	
Apr	Surveyors measuring snow depths and water content	
May	"Kneeling Nuns" of Red Rock Canyon (Rt. 14 [US 6], Kern Co.)	
Jun	Orleans Br. across Klamath River on Rt. 96 (Humboldt Co.)	
Jul	Section of Tioga Pass Hwy., Mono Co.	
Aug	Bridge across Sacramento River at Antler on US 99 Shasta Dam relocation	
Sep	Ocean Shore Hwy. under construction between San Francisco and Santa Cruz	
Oct	Pit River Br. across Shasta Dam reservoir lake nearly completed	
Nov Dec	"California Highways and National Defense" military montage Rt. 2, Angeles Crest Hwy. as seen from point between two tunnels (L.A. Co.)	
Dec	Rt. 2, Angeles Crest Hwy. as seen from point between two tunners (L.A. Co.)	
1942		
Jan	US 50 at Strawberry looking east to Echo Summit	
Feb	Feather River Canyon, Plumas Co. in winter, seen from Rt. 70 [US 40-Alt.]	
Mar thr	ough Dec Montage of Public Works projects	
1943		
Jan	Earl Warren, Governor of California	
Feb	Same as March 1942. [Last monthly issue]	
Mar-Apr through Nov-Dec Same as March 1942		
1944		
Jan-Feb	Winter scene on US 50 across the Sierra Nevada	
Mar-Apr		
May-Jul	Leavening grade on Rt. 120, Tioga Pass entrance to Yosemite	
Jul-Aug		
Sep-Oct		
Nov-De	Rt. 14 [Rt. 23] through Red Rock Cyn on Mojave Desert, Kern Co.	

California Highways and Public Works

COVER ILLUSTRATIONS 1937-1967

1945

Jan-Feb Rt. 180, Kings River Canyon Hwy., Fresno Co.

Mar-Apr I-5; Pacific Hwy. [US 101, Rt. 2]: Torrey Pines Mesa, San Diego Co.
May-Jun I-80 [US 40, Rt. 69]; East Shore Hwy. in Oakland along San Francisco Bay

Jul-Aug Carquinez Bridge

Sep-Oct Rt. 1 [US 101, Roosevelt Hwy.] north of Santa Monica Nov-Dec Trees draped in snow along Rt. 89, West Shore Lake Tahoe

1946

Jan-Feb Shasta Dam and reservoir (color)
Mar-Apr I-80 [US 40] near Gold Run, Placer Co.
May-Jul Donner Lake on I-80 [US 40]

Jul-Aug Rt. 37, Black Point Cut-off between Napa and Ignacio (Sonoma Co.)

Sep-Oct Rt. 24 at Orinda Junction (Contra Costa Co.)

Nov-Dec San Francisco-Oakland Bay Br. showing Western Terminal

1947

Jan [AASHO special issue] Delegates at 32nd annual meeting of AASHO

Jan-Feb I-10 [US 99] in San Bernadino Co. looking north toward Redlands

Mar-Apr Rt. 120, Tioga Pass Hwy. mountain scene (color)

May-Jun Sheep grazing alongside Sign Rt. 89 in Hope Valley, Alpine Co.

Jul-Aug US 101 north of Salinas, Monterey Co., 4-lane divided highway section

Highway leading to Mt. Shasta

Sep-Oct I-80; North Sacramento Fwy, opened Oct. 6, 1947

Nov-Dec Terminal Island Fwy under construction (Los Angeles Co.)

1948

Jan-Feb I-80 [US 40] through Auburn, Placer Co.

Mar-Apr Rt. 163 [US 395], Cabrillo Fwy., San Diego Co.

May-Jun US 101; Montecito Pkwy. viewed from Ortega Hill (Santa Barbara Co.)

Jul-Aug US 101; Hollywood Fwy. [Cahuenga Fwy.] in Los Angeles Sep-Oct US 101, San Luis Obispo Co., a four-lane divided freeway

Nov-Dec Trees across street from Public Works Building, Sacramento (color)

1949

Jan-Feb I-80 [US 40] widening operations through American Canyon Cut-off Hollywood Fwy. (US 101) between Barnam Blvd. and Vineland Ave.,

May-Jun Bayshore Fwy (Us 101), showing San Bruno Interchange

Jul-Aug I-5 [US 99]; Ridge Route at junction with Rt. 126 [Rt. 79] to Ventura

Sep-Oct Four-Level Structure, Los Angeles

Nov-Dec US 50 near Kyburz, El Dorado Co. (color)

1950 Jan-Feb I-10 [Rt. 26] divided highway at Redlands, San Bernadino Co. Mar-Apr California State Capital and surrounding area, aerial view Mav-Jun US 101 divided highway between Oxnard and El Rio Junction Jul-Aug Lake Tahoe as seen from I-80 [US 40] Sep-Oct Centennial Edition 1850--1950 Nov-Dec Blasting in Piru Gorge on I-5 [US 99], Ridge Route 1951 Jan-Feb Hollywood Fwy. (US 101)section dedicated Dec. 27, 1950 Mar-Apr US 101 through historic Gaviota Pass (Santa Barbara Co.) May-Jun Bayshore Fwy. (US 101), first unit completed within city of S.F. Jul-Aug Rt. 1 on Pedro Mt., San Mateo Co. Sep-Oct Charles Henry Purcell, 1883-1951 Nov-Dec Balancing Rock on Rt. 158 [Rt. 111] leading to June Lake, Mono Co. 1952 Jan-Feb Snow battle scene on I-80 [US 40] during record 1952 storm Mar-Apr Colorado St. Bridge under construction, Pasadena May-Jun Yuccas in bloom along I-15 [US 395] near Cajon Pass, San Bernadino Co. Burney Falls, Shasta Co. Jul-Aug Sep-Oct Rt. 4 leading to Calaveras Big Trees Nov-Dec Farm-to-Market roads feed into Arnold Industrial Fwy., Contra Costa Co. 1953 Jan-Feb Trees in Sierra draped with snow Mar-Apr Four-level Structure, Los Angeles May-Jun Indian Head rock formation in Riverside Co. Donner Lake on I-80 [US 40] (color) Jul-Aug Safety message featuring Smokey the Bear Goodwin J. Knight, Governor of California Sep-Oct San Quentin Wye near San Rafael, Marin Co. Nov-Dec First snowfall of season at Echo Summit, US 50 Shores of Lake Mary, Mono Co. 1954 Jan-Feb Four-level Structure in heart of L.A. Freeway System, night view I-15 through Blue Cut Area near Cajon Summit (San Bernadino Co.) Mar-Apr May-Jun Bald Rock Canyon in Middle Fork of Feather River Lake Alminor in Plumas Co.

Jul-Aug

Sep-Oct

Nov-Dec

Skyline views upon entering San Francisco on Bayshore Fwy. from south

Safety message featuring Smokey the Bear

US 50 at Strawberry (El Dorado Co.) (color)

Owens Valley as seen from US 395 at Olancha (Invo Co.)

California Highways and Public Works

COVER ILLUSTRATIONS 1937-1967

1955 Jan-Feb School Safety Patrol leader on duty at Whitter School, Berkeley (color) Mar-Apr San Francisco skyline as seen entering central district from Bayshore Fwy. May-Jun San Luis Obispo freeway (US 101) (color) Highway relocation along Laurel Dell Lake on Rt. 20, Lake Co. Jul-Aug Safety message featuring Smokey the Bear (b&w) Arch in Natural Bridges State Park, Santa Cruz Sep-Oct Fallen Leaf section of Lake Tahoe viewed from Rt. 28 [Rt. 94] Nov-Dec Sherwin Grade in Invo-Mono Counties, covered in snow 1956 Jan-Feb Four-lane divided section of I-5 [US 99] at foot of Mt. Shasta Mar-Apr Golden Gate Bridge San Francisco--Oakland Bay Bridge Wild flowers in bloom along Rt. 119 [US 399] in Arvin Dist., Kern Co. May-Jun Fields in bloom near Hollister, Rt. 156 [Rt. 22], San Benito Co. Richmond--San Rafael Br. Jul-Aug Safety message featuring Smokey the Bear (b&w) Sep-Oct Trees along Luther Pass Hwy. (Rt. 89) west of Lake Tahoe in autumn Rt. 70 [US 40-Alt]; Feather River Hwy., Plumas Co. Nov-Dec June Lake on Rt. 158 [Rt. 111] covered in blanket of snow (Mono Co.) Light pattern created by headlights on Harbor Fwy. 1957 Jan-Feb US 101; San Luis Obispo Fwy. at Shell Beach Model of depressed freeway and adjacent residential area Mar-Apr University Ave. Interchange, Berkeley Rt. 24, Lafayette Bypass (Contra Costa Co.) Kings River Canyon Recreational Area (Fresno Co.) May-Jun Coyote Dam area before dam construction (Mendocino Co.) Cypress St. double-deck freeway, Oakland Jul-Aug Safety message featuring Smokey the Bear (b&w) Sep-Oct US 101 paving job for Paso Robles Bypass (San Luis Obispo Co.) US 101, Redwood Fwy.; construction on 'big cut" (Humboldt Co.) Nov-Dec Downtown Los Angeles looking north along Harbor Fwy. I-5; Golden State Fwy. near Rt. 14/I-5 [US 6/US 99] interchange 1958 Jan-Feb Rotary snow plow clearing section of I-80 [US 40] at Donner Summit Rt. 18 in Mojave Desert near Apple Valley [See M/J '58 p44] Mar-Apr Superstructure of parallel Carquinez Br. seen from piers of south approach Bay Br. as seen from Yerba Buena Island US 101 at Bridges Cr. in northern Mendocino Co. May-Jun Rt. 70 [US 40-Alt.] at Elephant Butte Tunnel in Plumas Co. Jul-Aug

Rt. 70 [US 40-Alt.] at Elephant Butte Tunnel in Plumas Co.
Rt. 193 [Rt. 93] passing through Broom in bloom (El Dorado Co.)
Stanislaus Rvr. Br. between Sonora and Angeles Camp, Rt. 49
Rt. 14 [US 6] in eastern Kern Co. near Red Rock Canyon
Bixby Creek Br. on Rt. 1 (Monterey Co.)
Lighthouse at western terminus of I-8, Cabrillo Nat. Park (San Diego)
Grout Bay camp-ground along Rt. 18 near Big Bear Lake

Sep-Oct

Nov-Dec

Jan-Feb Light pattern created by autos on Hollywood Fwy. approaching City Hall Santa Ana Fwy. (I-5) crossing under roadway of Long Beach Fwy. (I-710) Interchange at junction of Rt. 1 and Rt. 17 in Santa Cruz Mar-Apr Traffic using parallel Carquinez Br., widening of old span Rt. 60 west of Beamont in San Bernadino Co. May-Jun All American Canal Br. on I-8 [US 80], Imperial Co. Jul-Aug I-80 [US 40] passing under Magazine St. Overcrossing in Vallejo. US 50 east of Echo Summit, starting down Meyers Grade Sep-Oct Rt. 168 near Huntington Lake in Fresno Co. US 101; landscaped section near Mission San Luis Obispo Nov-Dec I-5 [US 99] expressway north of Shasta Lake US 101 in Rattlesnake Canyon north of Laytonville (Mendocino Co.) 1960 Jan-Feb 65 MPH signs on I-80 near Nevada state line, in effect Jan. 1, 1960 Mulholland Summit Cut on San Diego Fwy. (I-405) in Los Angeles Santa Monica-Harbor Fwy. interchange under construction Mar-Apr I-880; landscaped section of Nimitz [Eastshore] Fwy. through Oakland Rt. 24; landscaping at Pleasant Hill Rd. interchange May-Jun Installation of large directional signs on Walnut Creek Bypass Ventura--San Diego Fwy. interchange and vicinity (front and back cover) I-5 [US 99] under construction in Sacramento Rvr. Canyon near Dunsmuir Jul-Aug Mission Valley interchange for I-8/Rt. 163 [US 80-395], San Diego Sep-Oct I-5 [US 99]; downhill view of widened Grapevine Canyon section Folsom Lake at Mormon Island State Park Nov-Dec I-80; improved section between Hampshire Rocks and Soda Springs Webster St. Tube, Alameda; precast tube segments being cast 1961 Jan-Feb Landscaping on US 101 at Cabrillo Blvd. interchange, Santa Barbara Santa Monica Fwy. (Rt. 60) under construction San Diego Fwy. through San Clemente showing typical freeway signing Mar-Apr Hazelview Summit Tunnel, drawings of (US 199, Del Norte Co.) I-80 plantings through Richmond at Solano Ave. Overcrossing May-Jun Novo River Br. (Rt. 1, Mendocino Co.) painted green Painting main cables of San Francisco--Oakland Bay Br. Jul-Aug US 101 through Pismo Beach (San Luis Obispo Co.) Sep-Oct Harbor Fwy. (I-110) through downtown Los Angeles US 101 between Willits and Laytonville (Mendocino Co.) Nov-Dec I-5 [US 99] south of Dunsmuir, Siskiyou Co.

1959

Grading work on Rindler Fill section of I-80 [US 40] near Vallejo

Redwood Parks area of US 101 between Meyers Flat and Dyerville Landscaped section of San Diego Fwy (I-405) near Sunset Blvd.

Mar-Apr	I-5 [US 99], Ridge Route section, covered in snow
	Rt. 49 between Auburn and Grass Valley
May-Jun	W. Branch Br. across N. Fork Feather Rvr. carrying relocated Rt. 70
	US 101 at Goleta (Santa Barbara Co.)
Jul-Aug	Rt. 29-128 south of Calistoga (Napa Co.)
	Golden State Fwy. (I-5) near Griffith Park Rd.
Sep-Oct	Turnbridge Dr. pedestrian overcrossing on US 50-99 near Sacramento
	Ventura Fwy. (US 101) under construction in city of Ventura
Nov-Dec	Redlands Fwy. (I-10) [US 70-99] at Cypress Ave. Undercrossing
	BeniciaMartinez Toll Br. and SP railway bridge
1963	
Jan-Feb	Cable spinning on Vincent Thomas Br. (San PedroTerminal Island)
Jan-reb	· · · · · · · · · · · · · · · · · · ·
Mar Anr	Time exposure night photo on I-80 [US 40] near Albany
Mar-Apr	Wildflowers along Rt. 46 [US 466] near Arvin turnoff (Kern Co.)
Mary Irra	San Diego Fwy. across Sepulveda Pass near Mulholland Drive Br.
May-Jun	Assistant State Hwy. Engineer Steve Macola conducting survey work
	Rt. 24 freeway between Walnut Creek and Lafayette
Jul-Aug	Rt. 49 (Mother Lode Hwy.) near Jacksonville
	Vincent Thomas Br. between San Pedro and Terminal Island
Sep-Oct	Flagman directing traffic on Rt. 18, San Bernadino Co.
	Cold Springs Canyon Br. painting (Rt. 225 [Rt. 150] Santa Barbara Co.)
Nov-Dec	US 101 (Redwood Hwy.) through Avenue of the Giants.
	Elysian Viaduct Br. carrying Golden State Fwy. over Pasadena Fwy.

Expressway west of Twain Harte, Rt. 108 (Sonora Pass Hwy.)

San Diego Fwy. (I-5) near 4-level junction and Balboa Park

US 101 freeway (Redwood Parks Fwy.) near Myers Flat. Donner Pass, showing old US 40 route, new I-80 Fwy.

Installing new sign on former US 101-Alt at Pt. Mugo, now part of Rt. 1

Bay Br. at night, illustrating change to one-way traffic [See J/A'64 p59]

Rt. 1 near Carmel--Pacific Grove Hwy. and 17-mile Drive interchange

Do Not Enter--Wrong Way signs at I-80 off-ramp near Sacramento

Rotary plow in operation on I-80 near Kingvale

Drawing of future I-280 through Los Altos Hills

US 101 freeway section in Santa Barbara

San Diego Fwy. (I-405) in Los Angeles

1962 Jan-Feb

1964 Jan-Feb

Mar-Apr

May-Jun

Jul-Aug

Sep-Oct

Nov-Dec

1965 Jan-Feb Roadside rest area overlooking Pacific Ocean at McKinleyville, US 101 Landscaped section of US 99 at Tulare Mar-Apr Golden State Fwy. (I-5) landscaping Bailey Br. in place across washed-out span of Smith River on US 199 US 101 through Waldo Grade north of Golden Gate Br. May-Jun W-X Street Br. under construction over Sacramento Rvr., Sacramento. California's first officially named "Scenic Hwy.," Rt. 1 along Pacific Coast Jul-Aug Interior of third Caldecott Tunnel Sep-Oct Before and after views of US 99 in Modesto Quaking aspen grove along Rt. 89 in Monitor Pass region Nov-Dec Raking leaves on median of Cabrillo Fwy. (Rt. 163) through Balboa Park Replacing sidehill viaduct at Dodge Pt. near Tioga Pass summit, Rt. 120 1966 Jan-Feb Montage of snow removal operations Rim of the World Dr. (Rt. 18) through San Bernadino Range in winter Rt. 88 near Carson Pass summit Mar-Apr Evening in Los Angeles on Harbor Fwy. near Civic Center Mojave Desert wildflowers; Zannetta House, San Juan Bautista; Yosemite May-Jun in winter; Carpenteria State Beach; E Clampus Vitus initiation in Volcano; US 395 south of Lone Pine; Fishing in Big Sur River; Sanctuary and Eye of God, Mission San Miguel; Sonoma Coast Unidentified California Beach Filming correct procedure for protecting maintenance workers from traffic Jul-Aug Rt. 58 where road begins to climb to Tehachapi Pass (Kern Co.) Sep-Oct Car towing boat on freeway ramp, city of Long Beach View of aspens and mountains from US 395, Conway Summit. Montage of construction projects statewide (front and back cover) **Nov-Dec**

1967 Jan-Feb

Los Angeles freeway at night

Unidentified section of highway in mountainous area [final issue]